S T A T E O F M I C H I G A N

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the Matter of the Application of **The Detroit Edison Company** for Authority to Implement a Power Supply Cost Recovery Plan in its Rate Schedules for 2012 Metered Jurisdictional Sales of Electricity.	))))))	Case No U-16892

NOTICE OF PROPOSAL FOR DECISION

The attached Proposal for Decision is being issued and served on all parties of record in the above matter on December 4, 2012.

Exceptions, if any, must be filed with the Michigan Public Service Commission, 4300 West Saginaw, Lansing, Michigan 48917, and served on all other parties of record on or before December 21, 2012, or within such further period as may be authorized for filing exceptions. If exceptions are filed, replies thereto may be filed on or before January 15, 2012. **The Commission has selected this case for participation in its Paperless Electronic Filings Program. No paper documents will be required to be filed in this case.**

At the expiration of the period for filing exceptions, an Order of the Commission will be issued in conformity with the attached Proposal for Decision and will become effective unless exceptions are filed seasonably or unless the Proposal for Decision is reviewed by action of the Commission. To be seasonably filed, exceptions must reach the Commission on or before the date they are due.

MICHIGAN ADMINISTRATIVE HEARING SYSTEM
For the Michigan Public Service Commission

Mark D. Eyster

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Mark D. Eyster
Administrative Law Judge

December 4, 2012
Lansing, Michigan

S T A T E O F M I C H I G A N

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PROPOSAL FOR DECISION

PROCEDURAL HISTORY

On September 30, 2011, The Detroit Edison Company (Detroit Edison, the Company, Applicant, or DECO) filed this application requesting authority from the Michigan Public Service Commission (Commission) to implement a Power Supply Cost Recovery Plan (Plan) in its rate schedules for 2011 metered jurisdictional sales of electricity.

On November 29, 2011, a pre-hearing conference was held before Administrative Law Judge, Mark D. Eyster. Counsel appeared on behalf of Detroit Edison, the Michigan Public Service Commission staff (Staff), the Michigan Community Action Agency Association (MCAAA), the Attorney General for the State of Michigan (Attorney General), the Association of Businesses Advocating Tariff Equity (ABATE), and on behalf of the Michigan Environmental Council and Natural Resources Defense Council (MEC), jointly. At the pre-hearing conference, intervenor status was granted to ABATE, MCAAA, MEC, and

the Attorney General. An evidentiary hearing was conducted on May 21 and 22, 2012. Briefs were filed on June 18, 2012, and reply briefs were filed on July 10, 2012. The record of this matter is found in the 704 page transcript and 64 exhibits.

FINDINGS OF FACT

Introduction

Detroit Edison presented the testimony of nine witnesses: Gary E. Lapplander, Director - Fuel Supply for Detroit Edison; William C. Rogers, Senior Technological Specialist – Environmental Strategies, Environmental Management & Resources for DTE Energy Corporate Services, LLC; James D. Good, Specialist – Fuel Resources, Fuel Supply for Detroit Edison; James D. Wines, Lead Engineer – Nuclear Generation for Detroit Edison; Kevin L. O'Neill, Principal Project Manager – Regulated Policy & Operations Organization for DTE Energy Corporate Services LLC; Michael W. Shields, Manager – Wholesale Market Developments, Regulatory Affairs; Sherrie L. Siefman, Supervisor of Long Term Energy Forecasting for Detroit Edison; Angela P. Wojtowicz, Manager – Wholesale Power Group for Detroit Edison, and; James J. Musial, Manager of Federal Regulatory Affairs at DTE Energy Corporate Services, LLC

Mr. Lapplander testified about Detroit Edison's Reduced Emission Fuel project (REF Project or Project). Additionally, he provided rebuttal testimony in response to evidence presented by MCAAA, the Attorney General, and MEC. He was subject to cross-examination. He sponsored exhibits A-21 through A-23.

Mr. Rogers provided direct testimony to address how reduced emission fuel (REF) will assist Detroit Edison's compliance with mercury (Hg) emission reduction requirements. In rebuttal, he responded to the testimony of MEC's witness, George E. Sansoucy. Mr. Rogers was subject to cross-examination. Mr. Good sponsored exhibit A-2 and testified to support the fossil fuel expense found in it. He provided rebuttal testimony in response to matters raised by MEC's witness, Mr. Sansoucy. As part of his rebuttal, he sponsored exhibits A-24 and A-25. Mr. Good was subject to cross-examination. Mr. Wines presented direct testimony addressing Detroit Edison's five-year projection of nuclear fuel expense. He sponsored exhibit A-1. He was subject to cross-examination. Mr. O'Neill provided direct testimony addressing the proposed 2012 PSCR billing factors and the projected PSCR factors for 2013 through 2016. He provided rebuttal testimony addressing matters raised by witnesses for MCAAA, MEC, and the Attorney General. Mr. O'Neill was subject to cross-examination. He sponsored exhibits A-3 and A-4. Mr. Shields provided direct testimony addressing projected expenses associated with being a customer of the International Transmission Company (ITC) and with being a market participant of the Midwest Independent Transmission System Operator (MISO). He sponsored exhibits A-5 through A-7. Mr. Shields was subject to cross-examination. Ms. Siefman presented direct testimony addressing Detroit Edison's sales and system output forecasts for 2011 through 2016. She sponsored Exhibits A-8 through A-12. Ms. Wojtowicz presented direct testimony regarding Detroit Edison's projected generation, emissions and associated

emission allowance expenses, and purchase power expenses for 2012 through 2016. She presented rebuttal testimony to address matters raised by MEC's witness, George E. Sansoucy. She was subject to cross-examination. She sponsored Exhibits A-13 through A-20. Mr. Musial presented direct testimony about Federal Energy Regulatory Commission (FERC) matters that may affect Detroit Edison's cost of services. Mr. Musial was subject to cross-examination.

The Attorney General presented the testimony of Michael J. McGarry, President and CEO of Blue Ridge Consulting Services, Inc. Mr. McGarry's testimony addressed Detroit Edison's REF Project costs and Activated Carbon Injection (ACI) costs. Mr. McGarry sponsored Exhibit AG-1.

The MEC and NRDC presented the testimony of George E. Sansoucy, Owner, George E. Sansoucy, P.E., LLC. Mr. Sansoucy's testimony addressed a number of topics, including: Detroit Edison's projected 9% increase in 2012 coal costs, Detroit Edison's projected natural gas costs for 2012, Detroit Edison's 5-year PSCR forecast, and Detroit Edison's REF Project. Mr. Sansoucy sponsored Exhibits MEC-1 through MEC-21.

MCAAA presented the testimony of William A. Peloquin, a Certified Public Accountant. Mr. Peloquin presented testimony addressing Detroit Edison's REF Project. He sponsored Exhibits MCAAA-4 through MCAAA-8. MCAAA also sponsored Exhibit MCAAA-14. Upon Detroit Edison's motion to strike, the pre-filed testimony of MCAAA's proposed witness, Ronald C. Callen, a consultant and technical advisor for the Public Law Resource Center PLLC, was not entered into the record.

PSCR Billing Factor

Detroit Edison has calculated a 2012 levelized monthly PSCR billing factor of 4.18 mills/kWh. 3 Tr 417. Exh A-3. The calculation reflects the change in the average unit cost of power supply from the base of 31.26 mills/kWh. 3 Tr 417. The 2012 Plan includes an estimated under-recovery of $158.360 million from the 2011 PSCR period and projections related to the REF Project. 2 Tr 420. 3 Tr 422. The calculation is based upon power supply costs projections presented in Exhibit A-13 and, as explained, at 2 Tr 235, by Detroit Edison's witness, Ms. Wojtowicz:

> [T]he PSCR expense forecast includes the fuel expense for electric generation, purchased and renewable power expense, revenue from wholesale power sales to third parties, NOx emission allowance expense associated with generation, SO_2 emission allowance expense associated with generation, bundled transmission expenses, MISO energy market and ancillary services market (ASM) related costs, and urea expense.

As discussed below, the parties challenge some individual items affecting the PSCR factor. The methodology, however, is not challenged and is accepted as reasonable.

Generation, Emissions, and Purchase Power Requirements: 2012 through 2016.

At 2 Tr 234-259, Ms. Wojtowicz provided testimony addressing Detroit Edison's generation, emission allowance expenses, and purchase power requirements for 2012 through 2016 and presented the associated projections in Exhibits A-13 through A-20. In Exhibit A-13, she presents Detroit Edison's Projected Fuel, Net Purchase Power, and PSCR Expense forecast for 2012-

2016.[1] In Exhibit A-14, she presents Detroit Edison's Forecast of Plant Generation (2012-2016) and, in Exhibit A-15, Detroit Edison's Capacity Resource Plan (2012-2016).

At 2 Tr 259, Ms. Wojtowicz states:

> [T]he projection of Detroit Edison's generation and purchased power were developed from an economic dispatch forecast designed to reliably and economically serve the energy and demand requirements of the Company's customers based on fuel cost, electricity market costs, and emission allowance costs. The forecast was evaluated based on historical operation and expected changes due to maintenance schedules, fuel costs, market-based electricity prices, shifting environmental regulations, and changes in Net System Output. The emissions were projected from the economic dispatch taking into account the market price of emission allowances required for generation. All relevant power supply elements were evaluated and reasonable and prudent projections were utilized to arrive at a reasonable and prudent power supply plan for Detroit Edison for 2012 and for the "out years" of 2013-2016.

The parties do not challenge the method for calculating these projections and it is accepted. As discussed below, there are challenges to the 5-year projection for coal costs and REF Project related expenses. Because of the changing and uncertain regulatory environment, many of the projections are, likewise, subject to change and appear uncertain.

[1] Shown on Exhibit A-13 are the annual summaries of: forecast generation (Exh A-14); fuel expense (Exh A-2 Revised); forecasted Ludington Losses; the Net Purchased Power and Expense forecast (Exh A-16); the emission allowance expense projections for seasonal NO_X allowances for the years 2012 – 2016 (Exh A-17); the emission allowance expense projections for annual NO_X allowances for the years 2012 – 2016 (Exh A-18); the emission allowance expense projections for SO_2 allowances for the years 2012 – 2016 (Exh A-19); the urea and powdered activated carbon expense projections (Exh A-20); the bundled transmission expense (Exh A-5); an expense adjustment for FERC wholesale firm sales; an expense adjustment for interruptible sales; a transmission expense adjustment for customers whose rates do not include the PSCR factor, and; the PSCR Fuel and Purchased Power Expense. 2 Tr 236.

Sales and Output Forecasts: 2011-2016

At 3 Tr 571-85, Detroit Edison's witness, Ms. Siefman provided testimony to address Detroit Edison's electric sales and system output forecasts for 2011 through 2016. Ms. Siefman forecasts electric sales to decrease from temperature normalized sales of 49,591 GWh in 2010 to 47,027 GWh in 2016; an average annual decrease of 0.9%. 3 Tr 573. For the period, she projects an average annual decrease in Residential Class sales of 1.9%; in Commercial Class sales of 0.4%, and; in Other Class sales of 17.0%. 3 Tr 573-74. For the same period, average annual Industrial Class sales are expected to increase by 2.3%. 3 Tr 573-74. Weather sensitive sales projections were made using average 1971 through 2000 mean daily temperatures at Detroit Metropolitan Airport. 3 Tr 585.

Ms. Siefman explains the development of her forecast by stating, at 3 Tr 574-75, that:

> For most sectors of the forecast, electric sales levels are related to the various economic, technological, regulatory, and demographic factors that have affected them in the past. The procedure begins with the assembly of historical data relating to the various sectors of the forecast. These data are examined and the factors that are statistically significant in explaining electric sales are identified using regression techniques. The forecast is developed employing the appropriate regression equations.
>
> Economic driving variables (explanatory factors), such as car and truck production, steel production, employment, and others, are entered into the regression equations to calculate projected future electric sales levels.
>
> The forecast is developed separately for each of four main categories: manufacturing, non-manufacturing, Residential Class, and Other Class. Sales in the manufacturing sector are forecast by developing subcategory equations for the automotive industry, the steel industry, chemicals, petroleum, metal fabrication, manufacturing equipment, rubber and plastics, non-metal processing, mining and other manufacturing. Modifications are made, as required, for displacement by customer self-generation in

> the manufacturing sectors. The non-manufacturing category is forecast using regression equations for nine subcategories. The subcategories are then disaggregated into markets. The non-manufacturing sales for each market are divided into Primary Class and Commercial Class components.
>
> In the Residential Class, an end-use approach is employed in which 39 different appliances or appliance groups are defined. The individual appliance forecasts that result are then aggregated to constitute the total Residential Class sales forecast. The Other Class is forecast by separating the class into wholesale-for-resale, municipal water pumping, and street lighting. System output is forecast as the sum of the electric sales values and the projected losses.

Ms. Siefman's testimony stands uncontested, appears reasonable, and is accepted.

ITC and MISO Expenses

At 3 Tr 524-64, Detroit Edison's witness, Mr. Shields testified about projected expenses associated with being a network transmission customer of ITC and with being a market participant of MISO. Mr. Shields testimony addressed projected expenses for 2012 through 2016 and was divided into two sections; base transmission charges and charges related to participation in the MISO energy and ancillary services markets (ASM). 3 Tr 524. Mr. Shields projects 2012 total base transmission costs of approximately $236.0 million. 3 Tr 535. He estimates 2011 MISO energy and ASM costs of approximately $9.0 million. 3 Tr 555. In Exhibit A-5, Mr. Shields presents Detroit Edison's combined cost estimates for base transmission and MISO Energy and ASM of $245,077,000 for 2012, $267,851,000 for 2013, $270,298,000 for 2014, $264,324,000 for 2015, and $281,690,000 for 2016. Exh A-5. Mr. Shields adds, at 3 Tr 557, that:

> [These expenses] are necessary and integral to Detroit Edison being able to provide retail electric service to its full service customers. The rates upon which the expenses are determined are subject to approval by FERC and comply with FERC's vision for the operation and expansion of the interconnected electric transmission grid.

Mr. Shields' testimony stands uncontested. His conclusions appear reasonable and are accepted.

Federal Energy Regulatory Commission (FERC) Issues

Detroit Edison presented the testimony of Mr. James J. Musial at 3 Tr 492-504. He provided an overview of Detroit Edison's involvement in matters before FERC that may affect Detroit Edison's PSCR charges. Specifically, Mr. Musial addressed: the MISO proposal to establish a new Multi Value Project transmission planning and cost allocation category; FERC's Order No 1000, addressing transmission planning and cost allocation; MISO's Transmission Expansion Plan, and; MISO's proposed modifications to its resource adequacy requirements. 3 Tr 492. Mr. Musial testified that "Detroit Edison has taken all appropriate legal and regulatory actions to address issues arising under FERC's jurisdiction." 3 Tr 503. No party contested any of Mr. Musial's testimony and it is accepted as fact.

Fermi-2 Nuclear Fuel Expense

There are three components of nuclear fuel expense: front end costs, in-core interest expense, and regulatory costs. 3 Tr 361. Front end costs include the costs of the uranium ore, its conversion to uranium hexafluoride, enrichment services, and the fabrication of fuel bundles. 3 Tr 361. These costs are

amortized to PSCR expense over the life of the fuel. 3 Tr 361. Detroit Edison currently pays regulatory costs to the Department of Energy (DOE) in the amount of $1/MWh of net electrical generation sold. 3 Tr 362. "Detroit Edison considers the $1.00/net MWh sold to be compensation to the DOE for executing its responsibilities and obligations in accordance with the standard contract for disposal of SNF and Title 10, Part 961 Appendix G." 3 Tr 362. As stated by Detroit Edison's witness, Mr. Wines, at 3 Tr 362-63:

> Pursuant to both the contract and applicable law, the primary responsibility of the DOE is to accept title to the SNF and provide for its transportation from Fermi 2 to the disposal site. In this regard, the DOE is responsible for providing the shipping cask and its handling procedures, any special tools or equipment necessary to handle the cask, and routine cask maintenance.
>
> The DOE is not responsible for the preparation and packaging of the SNF, or for the loading of the shipping cask. Additionally, the DOE is not responsible for any incidental maintenance, protection, or preservation of the cask while it is in the possession and control of Detroit Edison. The fees paid by Detroit Edison to the DOE are deposited into the Nuclear Waste Fund, as required by Public Law 97-425, and the fee may be adjusted from time to time in accordance with the law to ensure full cost recovery by the DOE.

Exhibit A-1 provides the following projected nuclear fuel expense for 2012–2016.

		($000)					
Year	GWHr	Fuel Amort	In-core Interest	Regulatory Cost	Nuclear Fuel Exp	$/MWHr	Cents/ MBTU
2012	8,576	47,675	0	7,916	55,591	6.48	63.0
2013	8,618	49,770	0	7,954	57,724	6.70	65.1
2014	9,532	58,192	0	8,798	66,990	7.03	68.3
2015	8,744	54,410	0	8,071	62,481	7.15	69.4
2016	8,749	55,083	0	8,075	63,158	7.22	70.1

For a number of reasons, Detroit Edison's witness, Mr. Wines, considers these expenses reasonable and prudent and they are accepted as so. See 3 Tr 365-66.[2]

Fossil Fuel Expense

Exhibit A-2 Revised is Detroit Edison's five year forecast of fuel expenses. Exhibit A-2 Revised shows that Detroit Edison forecast total fossil fuel expenses[3] of $978,633,000 for 2012, $1,090,881,000 for 2013, $1,239,351,000 for 2014, $1,150,219 for 2015, and $1,198,608,000 for 2016.

At 2 Tr 312-14, Detroit Edison's witness, Mr. Good, described the method used to develop the fuel expense forecast, as follows:

> The 7 months actual, 5 months forecast (7&5 Outlook) for 2011 is the basis for the 2012-2016 forecast. The 7&5 Outlook uses actual August 1, 2011 inventory quantities and costs, and forecasts the remaining five months of 2011. The forecasted December 31, 2011 inventory quantities and costs are inputs to the 2012-2016 forecast.
>
> The forecasted delivered coal costs for the last five months in 2011 and for 2012-2016 were determined using existing contract coal prices and transportation rates, forecasted spot market coal prices, and forecasted transportation rates. The forecasted spot market coal prices for 2012-2014 were based upon market information obtained from an over-the-counter (OTC) coal broker. For 2015 and 2016, spot market coal prices were estimated to remain constant with 2014 prices. The forecasted transportation rates were based on current contract prices for future years, along with fuel surcharge escalation based on diesel oil forward pricing.
>
> The forecasted delivered No. 2 and No. 6 oil and natural gas costs were determined by using the New York Mercantile Exchange (NYMEX) futures prices adjusted for basis and local distribution company (LDC) charges.

[2] MCAAA challenges the nuclear regulatory expenses. As explained below, this challenge is rejected.

[3] This expense includes the cost of coal, No. 2 oil, No. 6 oil, natural gas, and coke oven gas (COG).

> The composite monthly delivered coal cost for each plant was calculated by using Fuel Supply's Fuel Price Estimating (FPE) spreadsheet for the balance of 2011 and 2012-2016. The FPE applies existing and forecasted coal prices and transportation rates to the monthly delivery requirements for each plant. The coal delivery requirements are determined by subtracting actual coal pile inventory levels from the coal pile inventory targets and adding the coal consumption requirements provided by Witness Wojtowicz. Delivery requirements for oil and gas are determined in a similar manner.
>
> The average annual unit cost of coal delivered to each Detroit Edison generation plant that burns coal was calculated in each year's FPE. The FPE output and delivered oil and gas delivery requirements and costs are used as inputs to the Forecasting Information and Budgeting System (FIBS) spreadsheet. Fossil fuel expense was calculated in FIBS by multiplying the average cost of inventory by fuel consumed.

Detroit Edison plans to meet its coal requirements with a combination of "long-term and spot market purchases." 2 Tr 314. A summary of the long-term contracts is provided at 2 Tr 315. No. 2 oil is expected to be provided pursuant to contracts, of three years or less duration, based on spot index price. 2 Tr 315. No. 6 oil is expected to be supplied under spot market agreements of no more than one year in duration. 2 Tr 315. Detroit Edison's natural gas will be acquired from local distribution companies under MPSC approved tariffs, by spot market purchases, and pursuant to a long term supply agreement based on spot index prices. 2 Tr 316. Detroit Edison expects to continue using COG at its River Rouge Power Plant pursuant to an agreement that began in June, 2009. 2 Tr 316.

The long-term forecast of coal prices assumes that 80% of the coal consumed will be low sulfur western (LSW) coal from southern Montana and northeastern Wyoming. 2 Tr 316. It is assumed that the remaining purchases will

include low sulfur eastern (LSE), mid sulfur eastern (MSE) and high sulfur eastern (HSE) from Central and Northern Appalachia. 2 Tr 316-17.

In 2011, Detroit Edison's coal cost was 241.3 cents per MMBtu. 3 Tr 619. Detroit Edison's 2112 projected coal cost is 262.7 cents per MMBtu. 3 Tr 619-20. The difference represents an approximately 9% increase in coal costs. 3 Tr 620. Almost all the increased cost is attributable to the higher cost of LSW. The expiration of an advantageous long-term transportation contract is the primary reason for the increased cost of LSW. 2 Tr 325, 331. These estimates do not reflect price changes after the September 30, 2011, filing date of this Application[4]. 2 Tr 323.

Detroit Edison believes that REF will affect fuel costs in 2012. 2 Tr 317. As explained in more detail below, the REF Project involves the application of chemical additives to coal to produce REF. 2 Tr 317. Detroit Edison expects REF to lower emissions of SO_2, Hg, and NO_X and to lower their associated emission allowance expenses. 2 Tr 317. At Detroit Edison's Belle River Power Plant (BRPP) and St. Clair Power Plant (SCPP), projected savings will be offset by a Refined Coal Adder (Adder). The Adder cost is projected at $416,000 for 2012, $431,000 for 2013, $452,000 for 2014, $9,769,000 for 2015, and $9,873,000 for 2016. Exh A-2 Revised.

At Detroit Edison's Monroe Power Plant (MPP), there will be a "Coal Fee Rate" (CFR) paid to Detroit Edison for the consumption of REF. 2 Tr 318. Detroit Edison receives $1.0375 per ton of REF consumed, up to seven million tons, after

[4] MEC provided data showing declining coal prices from January to April, 2012. See Exh MEC-3. This information was not available to Detroit Edison at the time of filing and suggests that Detroit Edison's actual 2012 coal costs may prove lower than projected.

which, it receives $1.50 per ton. Exh MCAAA-7. It appears that, for 2012, $0.65 per ton is credited to fuel costs with the remainder being applied to O&M, up to a cap of $2.76 million. Exh MCAAA-7. The CFR is forecast to generate $5,132,000 in 2012, $5,282,000 in 2013, $5,447,000 in 2014, $5,738,000 in 2015, and $5,921,000 in 2016. Exh A-2 Revised. Any savings from lower emissions at the MPP will further lower PSCR costs. 2 Tr 318.

In 2011, Detroit Edison's actual natural gas costs were $5.193 per MMBtu. 3 Tr 623. Exh MEC-1. For 2012, Detroit Edison projects natural gas cost to rise to $5.507 per MMBtu. Detroit Edison projects natural gas costs by using New York Mercantile Exchange (NYMEX) futures prices adjusted for basis and local distribution charges. The July 30, 2011, NYMEX futures prices, that Detroit Edison relied upon, showed a May 2012 price of $4.490 per MMBtu and a December 2012 price of $5.026 per MMBtu. 3 Tr 623-24. A more recent report, the April 3, 2012, CME Group – Henry Hub Natural Gas Futures, showed a May 2012 price of $2.18 per MMBtu and a December 2012 price of $3.26 per MMBtu. 3 Tr 624. Exh MEC-10. During the course of this case, Detroit Edison has not made adjustments to its Plan in consideration of lower natural gas prices. 3 Tr 624-25. At 3 Tr 626, using the more recent projections, MEC witness, Mr. Sansoucy, calculates lower natural gas costs of $6,817,500[5]. Based on his

[5] At 3 Tr 626, Mr. Sansoucy explains:

> Using the $3.35 per MMBtu average price for 2012 as of December 28, 2011, and adding 90 cents for the estimated basis and local distribution company charges, and subtracting that sum from Detroit Edison's projection of $5.50 per MMBtu, leaves a difference of $1.25 per MMBtu. Multiplying that figure times the projected burn in Exhibit A-2 of 5,454,000 MMBtu equals $6,817,500.

calculations, Mr. Sansoucy recommends a corresponding reduction in the 2012 PSCR factor to reflect lower natural gas costs. At 3 Tr 626.

The parties do not directly challenge the reasonableness of Detroit Edison's 2012 fossil fuel purchasing policies and they are, therefore, accepted as such. Evidence has been presented to suggest the actual costs of these purchases may be lower than Detroit Edison has projected. Any cost variances are subject to reconciliation.

Emission Control

The Cross-State Air Pollution Rule (CSAPR)[6]

On July 6, 2011, the U.S. Environmental Protection Agency (EPA) finalized CSAPR, a rule that requires significant reductions of SO_2 and NO_X power plant emissions and replaced the 2005 Clean Air Interstate Rule (CAIR). 2 Tr 248. CSAPR established separate cap and trade programs for SO_2 and NO_X. 2 Tr 249. Detroit Edison's forecasted emissions of SO_2 and NO_X are "well above the cap-based allocations". 2 Tr 250.

To comply with CSAPR, Detroit Edison was exploring options to reduce emissions via a combination of strategies, such as: the use of existing combustion controls, at the expense of reduced combustion efficiency; by burning a higher

[6] On December 30, 2011, the United States Court of Appeals, D. C. Circuit, stayed application of CSPAR. A copy of the court's order may be found at: http://www.epa.gov/crossstaterule/pdfs/CourtDecision.pdf. On August 21, 2012, the United States Court of Appeals, D. C. Circuit, issued a 2-1 decision vacating CSPAR and ordered the EPA to continue administering CAIR. A copy of this decision may be found at: http://www.cadc.uscourts.gov/internet/opinions.nsf/19346B280C78405C85257A61004DC0E5/$file/11-1302-1390314.pdf. Additional information is available at: http://www.epa.gov/crossstaterule/index.html. Given the current status of the CSPAR, the relevance of Detroit Edison's plans to comply with CASPR is unclear.

percentage of LSW fuel blends; by increased dispatching of lower emission units, and; by lower dispatching of higher emission units. 2 Tr 250. In addition to operational changes, Detroit Edison planned to purchase emission allowances to cover shortfalls from allocations. 2 Tr 251.

For NO_X emissions in 2012, Detroit Edison expected to purchase additional emission allowances at a cost of approximately $3.65 million. 2 Tr 251-52. Exh A-17. Exh A-18. However, starting in 2015, Detroit Edison expected to generate revenue from the sale of NO_X emission allowances. 2 Tr 251-52. Exh A-17. Exh A-18.

Detroit Edison did not forecast a need to purchase any CSAPR SO_2 emission allowances during the years 2012 through 2016. 2 Tr 253. Rather, Detroit Edison expected to sell CSAPR emission allowances with a projected PSCR benefit of $14.7 million.[7] 2 Tr 253.

At the time they were made, these projections appear to have been reasonable. However, with the demise of CSAPR, they may no longer be relevant. Any changes to actual 2012 PSCR costs should be addressed in reconciliation proceedings.

Acid Rain Program

For 2012, Detroit Edison projects the consumption of 114,227 total annual Acid Rain Program emission allowances at an associated expense of $1.47 million. 2 Tr 253. The figures are unchallenged and accepted.

[7] With the vacating of CSPAR, its unclear Detroit Edison may not realize any revenues from the sale of allowances. 2 Tr 295.

Electric Generation Units Maximum Achievable Control Technology Rule (EGU MACT)

On March 16, 2011, the EPA proposed the EGU MACT to limit Hg, acid gases, and other air pollutants from fossil fueled electric generation units (EGUs). 2 Tr 254. The EGU MACT establishes numerical emission limits for Hg, particulate matter (PM), and HCl (a proxy for acid gasses). 2 Tr 254. The compliance date is set for three years after publishing of the final rule in the Federal Register, currently expected to be in 2015. 2 Tr 254.

To comply with the EGU MACT mercury emission standards, Detroit Edison plans to use wet and dry scrubbers (FGD) at MPP units 1-4 and activated carbon injection (ACI) at all other units. 2 Tr 255.

Detroit Edison expects units with FGD will meet EGU MACT acid gas emission standards. 2 Tr 255. However, on non-scrubbed units, additional control measures will be necessary. 2 Tr 255. Detroit Edison is currently testing Dry Sorbent Injection (DSI) technology at its SCPP, units 3 and 7, to determine its technological and economic feasibility for removal of acid gasses at non-FGD power plants. 2 Tr 220-21, 255-56. Detroit Edison has no plans to test DSI at its other power plants. 2 Tr 220-21.

Some units will need additional PM emission control systems. 2 Tr 255.

Detroit Edison expects that some of its plants will be unable to comply with EGU MACT standards and are, therefore, candidates for closure. However, because of conflicting evidence provided by Detroit Edison's witnesses, Ms.

Wojtowicz and Mr. Rogers, it is not possible to determine precisely which units Detroit Edison considers candidates for closure.[8] See 2 Tr 256, Exh MEC-22.

Effect of REF

Detroit Edison expects the use of REF will reduce the emissions of NO_X, SO_2, and Hg. 2 Tr 256. However, Detroit Edison is unable to quantify the expected NO_X emissions reductions. 2 Tr 256. In 2012, the use of REF is expected to lower SO_2 emissions by 1,518 tons and reduce the need for associated emissions allowances.[9] 2 Tr 256. In 2015, Detroit Edison plans to use two sorbents, standard powdered activated carbon (PAC) and brominated activated carbon (BrPAC), to reduce Hg emissions. 2 Tr 256-57. Detroit Edison expects the cost of BrPAC to be "substantially more expensive than PAC" and that the use of REF will allow it to substitute PAC for BrPAC, thereby, reducing these sorbent expenses. 2 Tr 257. In its filing, Detroit Edison estimated REF

[8] In their testimony and discovery responses, both witnesses do include Harbor Beach and Trenton Channel, Units 7 and 8, as possibilities for closure. Beyond that, however, the record is unclear.

At 2 Tr 256, Detroit Edison witness, Ms. Wojtowicz, states that:

> In this PSCR Plan, the Company is assuming the use of DSI on St. Clair Units 1, 2, 3, 4, and 6 and Belle River Units 1 and 2. Harbor Beach, River Rouge Units 2 and 3, St. Clair Unit 7, and Trenton Channel Units 7, 8, and 9 are assumed, for planning purposes, to be retired in 2015. Such assumed retirements should not be construed as certain but present circumstances and expectations suggest the potential for such retirements.

However, in Exhibit MEC-22, a copy of a Detroit Edison discovery response, Detroit Edison's witness, Mr. Rogers, states:

> As Witness Wojtowicz testified, the company currently assumes Flue Gas Desulfurization together with Selective Catalytic Reduction technologies will provide compliance with EGU MACT standards at Monroe Power Plant Units 1-4. St. Clair Units 1, 2, 3, 4, 6, and 7, Belle River Units 1 and 2, River Rouge Units 2 and 3, and Trenton Channel Unit 9 are all candidates for DSI and ACI, although additional particulate control equipments may be necessary. Harbor Beach and Trenton Channel Units 7 and 8 are not expected to be candidates for these technologies, which might indicate likely candidates for retirement.

[9] At the SCPP, any savings realized from the use of fewer SO_2 emissions allowances will be off-set by payments to the St Clair Fuels Company (SFCC), the company producing the REF.

would reduce sorbent expenses by approximately $8.9 million in 2015. 2 Tr 257. Exh A-20. For reasons outlined below, this figure is not accepted.

Chemical Costs

Exhibit A-20 provides Detroit Edison's 2012 through 2016 projected costs of Urea, used to reduce NO_X emissions, and of PAC and BrPAC, for the reduction of Hg emissions.

Urea expense is projected to be approximately $4.65 million in 2012; rising to almost $9 million in 2016. Exh A-20. These projections are not challenged and are accepted.

As noted above, starting in 2015, Detroit Edison plans to use PAC and BrPAC to reduce Hg emissions. Detroit Edison's witness, Ms. Wojtowicz, sponsored Exhibit A-20, the only exhibit to address PAC and BrPAC costs. 2 Tr 290. In it, she provided estimates that, with the use of REF, the costs of PAC and BrPAC will be reduced approximately $8.9 million in 2015 and $9 million in 2016. Exh A-20. Thus, she projects these costs to be approximately $11.1 million and $11.2 million in 2015 and 2016, respectively. Exh A-20.

Detroit Edison's PAC and BrPac figures are not found reliable. On cross-examination, when asked about her "familiarity" with the "specific sources" for the estimates she provided, Ms. Wojtowicz stated, "[they were] provided [by] Bill Rogers and I believe he got them just in general discussions with other, with vendors and other utilities." 2 Tr 291. She added that "[t]hey're not based on specific quotes because we're not to any commercial point of negotiating with anyone." 2 Tr 291. During his cross-examination, Mr. Rogers, seemed unable

to shed any light on the reliability of these figures when the following colloquy took place, at 2 Tr 222-23:

> Q. [By Mr. Bzdok] Do you know how much REF -- do you have any projection or estimate for how much money REF is going to save the Company on, through reductions in the cost of activated carbon?
>
> A. [By Mr. Rogers] Witness Wojtowicz has put together an estimate based on some EPRI assumptions on different activated carbon costs, whether you have fully oxidized mercury or less oxidized mercury, and so we used those estimates, but we have not quantified the amount of reduction in sorbents and we haven't quantified what the cost -- we haven't determined what the cost of the different sorbents are because we haven't entered into any commercial arrangement. So that's an estimate that -- that's an estimate that's been put together based on some industry standards, but we haven't quantified, we haven't been able to optimize our systems.
>
> Q. Do you know how much REF -- do you have any estimates or projection for how much REF will save the Company in additional chemical injection capital equipment, as you refer to it in this testimony?
>
> A. We've identified what that equipment might be, we haven't identified -- we haven't designed equipment, done the capital cost of what it would include, and then we haven't, because we haven't installed those systems, we haven't quantified the amount of reagent that we would need to use.
>
> Q. Is it fair to say based on your answers to the last few questions that the Company currently does not know what the potential mercury emission-related savings of REF may be?
>
> A. In terms of a dollar amount?
>
> Q. Yeah.
>
> A. That's estimated on factors, we haven't quantified that for our system yet.

In short, Ms. Wojtowicz claims the figures were provided to her by Mr. Rogers after he had discussions with industry vendors and utilities and Mr. Rogers claims that the figures were "put together" by Ms. Wojtowicz "based on some [Electric Power Research Institute] assumptions". Rather than providing a sound evidentiary foundation upon which to find the reliability of the figures

provided, each of these witnesses credits the other for their production and each provides a different explanation of the manner and basis of their creation.

Further, on cross-examination they both undermine the reliability of figures, regardless of how they were developed. Ms. Wojtowicz claims the numbers aren't based on any specific quotes because Detroit Edison is "not to any commercial point of negotiating with anyone." Mr. Rogers admits that, in regard to the capital improvements that would be required, Detroit Edison has only identified the equipment that "might" be used and hasn't done the design work. He adds that Detroit Edison "[hasn't] been able to optimize [its] systems", hasn't "quantified the amount of reagent" that would be used, "[hasn't] determined . . . the cost of the different sorbents", and "[hasn't] quantified the amount of reduction in sorbents" that REF would provide. Finally, when asked directly if Detroit Edison knew "what the potential mercury emission-related savings of REF may be" in terms of dollars, he stated that Detroit Edison "[hadn't] quantified that for its system yet."

Based on the evidence in this record, the PAC and BrPAC figures presented by Ms. Wojtowicz cannot be found reliable or reasonable.

Detroit Edison's Research and Development

In its final order in Case No U-16434, at p 11, the Commission stated:

> Detroit Edison has given the Commission very little idea of whether, and how much, the sorbents will actually reduce mercury emissions. This does not preclude allowing future recovery. However, the Commission will require more and better information on the efficacy of available methods for achieving mercury emissions reductions, as well as a demonstration showing that the REF Project is a reasonable and prudent way of achieving the

> maximum reductions for the minimum cost, from both a technological and business point of view. The REF Project must also be shown to comply with the Code of Conduct. . . . Detroit Edison will need to return to the Commission with a much more detailed presentation on the costs, benefits, and efficacy of the fuel treatment program, as well as the costs and benefits of other potential mercury emissions reduction processes, if any exist.

As part of its response to the Commission, Detroit Edison presented the testimony of William C. Rogers, a Senior Technical Specialist with DTE Energy Corporate Services, LLC, who presented testimony addressing Detroit Edison's efforts related to mercury emission control. At 2 Tr 204, Mr. Rogers explained that:

> The purpose of [his] testimony [was] to provide additional information as requested by the Commission in its Order in Case No. U-16434 regarding Detroit Edison's mercury control requirements, strategy for compliance, and to explain how the use of Reduced Emission Fuel (REF) at the St. Clair and Belle River power plants, combined with Activated Carbon Injection (ACI), supports compliance with mercury rules at the lowest reasonable cost to the customer. [He] also explain[ed] how the use of REF at the Monroe power plant, combined with Flue Gas Desulfurization units (FGD), supports compliance with mercury rules at the lowest reasonable cost to the customer.

Mr. Rogers explained that Detroit Edison "invested significant effort into development and demonstration of technologies that showed the promise to cost-effectively make significant reductions in mercury emissions. 2 Tr 206. Continuing, at 2 Tr 206, he explained that:

> Detroit Edison subject matter experts actively participated in industry-wide collaborative projects with other utilities, equipment suppliers and developers. This included hosting several development and demonstration projects at Detroit Edison facilities. The Company's participation contributed significantly to the development of the technologies and to the understanding of the capabilities and limitations of those technologies, including specific applications at Detroit Edison power plants.

Addressing the technologies that Detroit Edison investigated, he explained, at 2 Tr 206-07, that:

> Detroit Edison investigated the use of Activated Carbon Injection (ACI), a dry sorbent technology, which is the most mature technology for the control of mercury emissions from coal-fired boilers. This technology can sometimes be used on coal-fired boilers with existing particulate control equipment like electrostatic precipitators (ESPs). . . . In addition to evaluating these technologies, Detroit Edison worked with Lehigh University Energy Research Center and EPRI to understand the potential capability of reducing mercury emissions through combustion modifications.
>
> In the last decade, Detroit Edison pursued the development of multi-pollutant technologies that would remove mercury in addition to other regulated pollutants. These technologies hold the potential to reduce multiple regulated pollutants at less cost than the sum of several individual technologies used to remove individual pollutants. The Company worked with technology developers on technologies such as ECO, CANSOLV, ReACT, Indigo System, and Mobotec, to name a few. While these technologies hold potential to deliver on the goal of a cost-effective multi-pollutant technology, they have either not achieved commercial viability or they have not been found to be more cost-effective than existing technologies.
>
> The Company also worked on the development and optimization of wet mercury removal, namely Wet Flue Gas Desulfurization (FGD) optimization and the potential application of Wet ESPs. Wet FGD has been very effective at removing oxidized vaporous mercury. Much effort has therefore gone into understanding how to maximize vapor phase mercury oxidation. This has included understanding the use of additives and the potential of mercury oxidation catalysts in Selective Catalytic Reduction (SCR) systems.

At 2 Tr 207-08, Mr. Rogers states that Detroit Edison determined that for MPP, Units 1-4, "the most cost-effective mercury reductions will occur as a co-benefit through the combination of Wet FGD systems (installed primarily for reduction of SO_2) and SCR systems (installed primarily for reduction of NOx)." For the remainder of Detroit Edison's coal fired fleet, he states that the most cost-

effective mercury reductions "will be achieved with the installation and operation of ACI systems." 2 Tr 208.

Mr. Rogers indicates that Detroit Edison has been testing the wet FGD systems at MPP, Units 3 and 4, and has determined that "additives are required to . . . increase mercury removal by the FGD for continuous compliance with EPA's more stringent MATs standards and assure compliance with Rule 1503 requirements." 2 Tr 210. Mr. Rogers adds, that, ["t]hese are the same additives that are used in REF." 2 Tr 210.

Regarding ACI systems, Mr. Rogers indicates that Detroit Edison has conducted several "partial- and full-scale tests" at its plants and participated in many tests conducted at plants owned by other companies. 2 Tr 210. Mr. Rogers states that "[t]hese tests have demonstrated ACI to be the most efficient, cost-effective method for significant capture of mercury from power plants without Wet FGD." 2 Tr 211. He notes that differing coal types and plant configurations affect ACI efficiency and costs, the type of PAC to be used, and PAC injection rates. 2 Tr 211.

Addressing the effects of REF on mercury emission control, Mr. Rogers states, at 2 Tr 211-12, that:

> Detroit Edison's testing has demonstrated that both Michigan Rule 1503 and MATS mercury emission standards can be achieved on St. Clair Units 1-6 and Belle River Units 1 and 2 using ACI. [These] ACI systems require a more expensive chemically treated PAC to achieve the required mercury removal. The required injection rates have been determined by several ACI tests conducted at St. Clair Power Plant Units 1 and 3 since 2004. Detroit Edison has conducted additional tests on those units in 2010 and 2011 demonstrating that while consuming REF,

> compliance-level mercury removal can be achieved using the lower cost standard PAC . . . at much lower injection rates.
>
> * * *
>
> [At MPP, with use of] REF, the vapor phase mercury entering the FGD is highly oxidized which promotes very effective mercury removal in the Wet FGD . . . . If REF were not used at Monroe Power Plant, then a separate system would be required to inject this additive onto the coal or into the flue gas to promote compliance-level mercury removal by the Wet FGD to consistently meet the MATS mercury standards. REF removes the need for additional costly additives necessary to achieve full compliance with the MATS mercury standard.

"However, [at its SCPP,] Detroit Edison cannot determine mercury or NO_X emission reductions attributed to REF during unit operation." Exh MEC-13.

Under cross-examination, Detroit Edison's witness, Mr. Lapplander, confirmed that "the REF process is something that was researched and developed by someone other than the DTE affiliate", i.e., DTE Energy Services (DTEES).[10] 2 Tr 105.

Mr. Rogers adds that Detroit Edison has been testing Dry Sorbent Injection (DSI) technology[11] at SCPP Unit 3. Exh MEC-21. This testing, what Detroit Edison considers its "best case scenario"[12], established that "DSI technology could meet acid gas targets along with [PM] targets of the MATS rule, while still being able to meet mercury targets with ACI. Exh MEC-21. This was true both with and without REF consumption." Exh MEC-21.

[10] As explained below, DTEES is the parent company of the companies that provide REF to Detroit Edison.
[11] DSI is used to remove SO_2 from flue gas.
[12] Unit 3 has the ability to consume various blends of coals and also has very efficient particulate control equipment (electrostatic precipitator, or ESP). Parametric testing of this unit would represent other units with very large, efficient ESPs, including St. Clair Units 1-6, Belle River Units 1-2, and River Rouge Units 2-3. Exh MEC-21.

Mr. Rogers indicates that the "primary benefit" of "REF for MATS and Michigan Mercury Rule compliance is in reduced ACI costs, not direct mercury reductions from REF." 2 Tr 216. He adds that at MPP, with FGD installed, "the primary mercury reduction benefit will be the increased vapor phase mercury oxidation as a result of REF, maximizing mercury capture in the FGD system." 2 Tr 216. However, as explained above, Detroit Edison does not know the amount of the anticipated savings attributable to the use of REF. See 2 Tr 222-23.

Reduced Emissions Fuel Project

Introduction

In its last PSCR Plan case, Case No U-16434, Detroit Edison presented information about the REF Project at its BRPP and SCPP. At page 8 of its December 6, 2011, Order, in Case No U-16434, the Commission stated:

> [I]nclusion of the REF Project costs in [Detroit Edison's] 2011-2015 PSCR plan cases is premature. Even Detroit Edison indicates that the proposal is somewhat preliminary. The evidence offered simply does not demonstrate the reasonableness and prudence of the amounts to be paid for services rendered by the affiliates, nor does it demonstrate exactly to what extent the REF . . . will actually reduce SO_2 and NO_X emissions. This decision has no impact on the requested factor, and the Commission is not rejecting the entire PSCR plan. However, the Commission finds that, in order to authorize these costs in future plan cases, it will require additional evidence, as is discussed in more detail in the next section.

In the next section, after discussion of the related topic of Hg emission costs, the Commission added, at page 11, that:

> As with the REF Project as a whole, the Commission finds that this request is premature and not well fleshed-out. While the

> Commission finds that the five-year forecast complies with MCL 460.6j, it also finds that, on the basis of the evidence presented in this case only, the Commission would be unlikely to permit recovery of the requested costs in 2015. Detroit Edison has given the Commission very little idea of whether, and how much, the sorbents will actually reduce mercury emissions. This does not preclude allowing future recovery. However, the Commission will require more and better information on the efficacy of available methods for achieving mercury emissions reductions, as well as a demonstration showing that the REF Project is a reasonable and prudent way of achieving the maximum reductions for the minimum cost, from both a technological and business point of view. The REF Project must also be shown to comply with the Code of Conduct. . . . Detroit Edison will need to return to the Commission with a much more detailed presentation on the costs, benefits, and efficacy of the fuel treatment program, as well as the costs and benefits of other potential mercury emissions reduction processes, if any exist.

In this Plan case, Detroit Edison presents additional information about the REF Project that has now expanded to include the MPP. As succinctly stated, at 3 Tr 636, by MEC witness, Mr. Sansoucy:

> The REF project involves Detroit Edison selling a portion of its coal inventory to three subsidiaries of DTE Energy Services, who apply chemical additives to the coal and then sell it back to Detroit Edison. The additives reduce SO_2 emissions, may reduce NO_X emissions, and may lower the cost of reducing mercury emissions. The three plants where the REF project is underway are Belle River, Monroe, and St. Clair. DTE Energy Services created three Fuels Companies, one for each plant: Belle River Fuel[s] Company (BRFC), Monroe Fuel[s] Company (MFC), and St. Clair Fuel[s] Company (SCFC). Under Section 45(e)(8) of the Internal Revenue Code, the Fuel[s] Companies are eligible for tax credits when they sell the [REF] back to Detroit Edison. Detroit Edison receives any benefits from the reduced emissions, potentially including lower control costs and revenues from the sale of emissions allowances.

Fuels Companies Ownership/Business Arrangements

On this record, the ownership/business arrangements of the Fuels Companies was not well explained. None of the numerous contracts that,

apparently, exist between Detroit Edison and the Fuels Companies were entered into evidence. Additionally, Detroit Edison failed to provide a comprehensive explanation of the corporate structure employed for the production of REF. The following is a description of the arrangements, as best as they can be developed.

Detroit Edison's witness, Mr. Lapplander, states that DTEES "has an exclusive license to use ChemMod,[13] the unique and proprietary chemical additive technology, at all DTE Energy sites." 2 Tr 57. From Exhibit MEC-36 it appears that DTEES has created a subsidiary, DTE REF Holdings LLC (DTE REF). Although not clear from the record, DTE REF appears to own a 1% interest in each of nine Fuels Companies[14] that have been established on the sites of Detroit Edison's SCPP, BRPP, and MPP. While, again, not clear from the record, it appears that DTEES initially retains the remaining 99% interest in the Fuels Companies.

Detroit Edison's witness, Mr. Lapplander explained that, in December 2009, the SCFC "placed in service" its facility. 2 Tr 57. The MFC placed its facility in service in November 2011. 2 Tr 57. Mr. Lapplander states that, in January 2011, a "membership interest was sold in the SCFC" and that, in November 2011, a "membership interest was sold in the MFC". 2 Tr 58. It appears that DTEES has sold its interests in the SCFC and MFC to unidentified

[13] Notice is taken of the ChemMod website which states, that:

> The Chem-Mod™ Solution is a dual injection process which utilizes a variety of chemicals comprising two sorbents which combine to form a system used before, during or after coal combustion to reduce a variety of emissions from a plant's discharge stack.

[14] There are two Fuels Companies sited at the BRPP, three at the SCPP, and two at the MPP. 2 Tr 57. As indicated below, it appears, however, that two of these Fuels Companies have been moved to unaffiliated power plants.

"third parties that are not affiliates of DTE Energy Company." Exh MEC-36. REF is now being consumed at SCPP units 1-4 and 6 and at all of the MPP's four units. 2 Tr 58. According to Mr. Lapplander, these arrangements allow the SCFC and MFC "to begin generating tax credits through the production of [REF] sold to Detroit Edison." 2 Tr 58.

REF "must be sold to an unrelated person to qualify for the tax credit". Exh A-21. The tax credit is worth approximately $6.40 per ton of REF sold. 2 Tr 155. Of this, the Fuels Companies retain approximately $2.05 to cover operating costs and the unidentified third-party investor receives something in the range of $2.00 - $2.20. Exh MEC-31. 2 Tr 156. Detroit Edison estimates that the Fuels Companies retain an additional $2.20 - $2.28 per ton of REF sold and "does not know where the money that has been retained goes". Exh MEC-31. 2 Tr 156. While seeming unsure, Mr. Lapplander estimates this to produce approximately $266 million for the Fuels Companies. 2 Tr 177-79. Detroit Edison suggests that the third-party investor is paying or has paid approximately $4.00 for every $6.00 of tax credit that it receives. Exh MEC-31. It was not established to what corporate entities the revenues received from the third party investors flows. See 2 Tr 157-58. See Exh MEC-31. The reliability of these tax credit related figures is questionable because Mr. Lapplander admits they're based on hearsay. See 2 Tr 180-81.

The arrangements for BRFC appear murkier and less certain. Detroit Edison's witness, Mr. Lapplander, explained that, in December 2009, the BRFC "placed in service" its facility. 2 Tr 57. "[T]he BRFC equipment is considered

'in-service' for purposes of qualification for Section 45 production tax credits." 2 Tr 58. It does not appear that DTEES has sold its 99% interest in BRFC. Exhibit MEC-36 indicates that the BRFC "leases the [REF] it owns at the [BRPP] to a third party that is not an affiliate of DTE Energy." It is not understood how or if this arrangement allows for the production of tax credits. However, currently, Detroit Edison makes no payments to BRFC because its facility is still being tested. 2 Tr 161.

Notice is taken of DTE Energy Company's Form 10-Q quarterly report for the period ending September 30, 2012. In it, at p 41, DTE Energy states:

> [DTE Energy] has constructed and placed in service nine REF facilities including two facilities located at third party owned coal-fired power plants. The Company has sold membership interests in two of the facilities located at the Detroit Edison sites. We continue to optimize these facilities by seeking tax investors for facilities operating at Detroit Edison and other utility sites. Additionally, we intend to relocate four underutilized facilities, located at Detroit Edison sites, to alternative coal-fired power plants which may provide increased production and emission reduction opportunities in 2012 and future years. Two of the underutilized facilities are currently being relocated to third party owned coal-fired power plants. The proceeds from executed and planned sales of membership interests in the REF facilities are expected to be received by the Company on an installment basis, and the Company will recognize the related gains (treated as sales of tax credits for financial reporting purposes) as production tax credits are generated by the respective facilities.

Notice is, also, taken of DTE Energy's March 8, 2012, and November 9, 2012, Form 8-K filings with the SEC. In the November 9th filing, at p 23, DTE Energy predicts REF earnings of $30-$40 million in 2012, approximately

$50 million in 2013, and $60-$65 million, annually, from 2014 to 2017[15]. These figures include earnings from operations at sites in addition to Detroit Edison's. DTE Energy describes its non-utility businesses, of which the Fuels Companies are a part, as "[m]eaningful, low-risk growth opportunities [that] continue to provide diversity in earnings and geography". DTE Energy, Form 8-K, p 20 (March 30, 2012).

Code of Conduct

As indicated above, in its December 6, 2011, Order, in Case No U-16434, the Commission stated that the "REF Project must also be shown to comply with the Code of Conduct."

As part of its attempt to do so, Detroit Edison presented Exhibit A-23, "a presentation explaining the REF projects' compliance with the MPSC Code of Conduct."[16], 2 Tr 57.

[15] These projections are higher than the ones contained in DTE Energy's March 8th filing that estimated earnings of approximately $30 million 2012 and approximately $50 million, annually, from 2013 to 2021.

[16] In Exhibit A-23, after presenting illustrated displays, captioned "Nature of Transaction", depicting the relationships between Detroit Edison and the Fuels Companies, Detroit Edison provides the following bullet points to explain its case regarding compliance with the Code of Conduct.

- Structural separation exists between Detroit Edison and the Fuels Companies
  - – Detroit Edison and the Fuels Companies do not share facilities, equipment or operating employees.
  - – No employee sharing takes place between Detroit Edison and any of the Fuels Companies.
  - – Detroit Edison and the Fuels Companies have not engaged in joint advertising, marketing, or other promotional activities related to the provision the fuels processing service.
  - - Regulated service is not being used to subsidize unregulated service.
- No preferential treatment has been accorded Fuels Companies in structuring this transaction
  - – Business risk resides solely with Fuels Companies

• The arrangement between Detroit Edison and the Fuels Companies provides Detroit Edison a risk-free option to help it attain mercury emissions requirements that must be met by 2015
• Detroit Edison has no capital invested in the REF production facilities
• No risk to Detroit Edison and its customers in making commitment to an unproven technology

– No financial risk to Detroit Edison
• PSCR and O&M costs remain unaffected or are reduced as a result of the REF projects
• Detroit Edison receives environmental benefits

– Fuels processing market has few players, DTE ES preeminent among those
• DTE Energy Services has proven prior experience in design/construct/operate fuel processing facilities
• DTE Energy Services is one of three licensees of the proprietary technology and has an exclusive license to offer the technology to Detroit Edison's plants.
• DTE Energy Services had reached a similar agreement with MPPA, an unaffiliated partner of Detroit Edison in the ownership and operation of Belle River
• DTE Energy Services selected by two Midwestern utilities to provide refined coal

– DTE Energy Services companies were uniquely qualified and situated to provide this service to Detroit Edison. No regulated service has been used to subsidize unregulated service.

• Asymmetric Pricing (Regulated to Non-Regulated)

– Detroit Edison sells coal to the Fuels Companies upstream of the plant site at its cost. As discussed below, the Fuels Companies sell the same coal back to Detroit Edison at the same cost that Detroit Edison originally charged for the coal. There is no net impact to Detroit Edison's PSCR charges as a result of the coal component of the overall transaction.

– To assure continued and reliable supply and delivery of fuel, Detroit Edison continues to provide logistical services (contracting, transportation scheduling, etc.) as well as fuel handling services.
• At St. Clair and Belle River, these services are charged to the Fuels Companies at Detroit Edison's cost. As discussed below, the St. Clair and Belle River Fuels Companies invoice Detroit Edison the same cost that Detroit Edison originally charged for providing these services. There is no net impact to Detroit Edison's O&M costs as a result of the logistical service component of the St. Clair or Belle River transaction.
• At Monroe, the Fuels Company pays Detroit Edison a fee which is apportioned by Detroit Edison between reducing the plant's O&M expense and reducing the plant's fuel (PSCR) expense.

– Detroit Edison provides other services to the Fuels Companies at their production facilities including water, sewage, and land. Detroit Edison charges the Fuels Companies an allocation of its costs for providing those services. The charge to the fuels companies decreases Detroit Edison's operating expenses. Electricity is metered and charged for at tariff rates.

At 2 Tr 58-59, Mr. Lapplander explains why he believes that Detroit Edison's sale of coal to its affiliates, BRFC, SCFC, and MFC is consistent with the intent of the Code of Conduct, where he states:

> Shipments of coal for consumption at the BRPP and SCPP will be sold at Detroit Edison's MERC transshipment facility. All rail shipments of coal for consumption at MPP will be sold FOB mine and all vessel delivered western coal for consumption at MPP will be sold FOB vessel at Detroit Edison's MERC facility. Notwithstanding these sales, the coal always remains under the supervision and control of Detroit Edison and MERC (no Fuels Company employees are involved in any process other than operation of the Fuels Companies separate equipment and facilities) and Detroit Edison's and MERC's books and records are maintained separately from the Fuels Companies. Most importantly, Section III.C of the Code of Conduct . . . provides for sales to affiliates at the higher of fully allocated cost or market price. With respect to fully allocated cost, the price at which Detroit Edison is selling the coal is equal to Detroit Edison's fully allocated cost, or book cost. The Fuels Companies will simply use the coal to produce REF and sell the REF back to Detroit Edison for consumption at the BRPP, SCPP and MPP and any adjustments to the sale price to reflect any higher market pricing would only serve

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- Asymmetric Pricing (Non-Regulated to Regulated)
  - The Fuels Companies sell coal to Detroit Edison on a real-time basis as the coal is being conveyed to the plant's boilers at the same price that the Fuels Companies purchased the coal from Detroit Edison.
    - At St. Clair and Belle River, the REF adder is applied that is equal to the value of SO_2 and Hg emissions capped at the Fuels Company's revenue requirement *and* a charge for incremental flyash handling costs and a credit for incremental flyash revenue enhancement. There is no net impact to Detroit Edison's PSCR charges or base rate costs as a result of the coal component of the overall transaction.
    - At Monroe, a fee is paid by the Fuels Company which is split between and reduces plant O&M and PSCR fuel expense.
  - The St. Clair and Belle River Fuels Companies pay Detroit Edison for providing consulting services (contracting, transportation scheduling, etc.) as well as fuel handling services. The Fuels Companies in turn charge back Detroit Edison for these services at the same price as charged by Detroit Edison for providing them. There is no net impact to Detroit Edison's costs recovered through its base rates as a result of this charge arrangement. There is no separate charge for providing these contracting and fuel handling services at Monroe and thus there is no charge-back by the Fuels Company for the cost of these services.

> to increase the resale price to Detroit Edison. Since the asymmetrical pricing provision of the Code of Conduct is intended to prevent Detroit Edison from subsidizing its unregulated affiliates, it is clear that this transaction is consistent with that intent and effectuates the proper outcome.

Detroit Edison claims a number of reasons why it chose its affiliates, SCFC and BRFC, to provide REF. Mr. Lapplander states that, "[f]irst and foremost", the arrangement provided Detroit Edison a "risk free option to help it attain the mercury emission reduction requirements contained in Michigan Rule 1503 beginning in 2015." 2 Tr 60. In addition, Mr. Lapplander states that "tax risks and commitment to an unproven technology at its generating facilities were not appropriate for a regulated utility." 2 Tr 60. At 2 Tr 60-61, he adds that:

> [DTEES], the parent company of both BRFC and SCFC, has experience designing, constructing, and operating the production equipment and was willing to take on the associated risk. At the time the REF facilities were constructed at the Belle River and St. Clair Power Plants, the existing legislation required the facilities to achieve commercial operation (i.e. be in service) by January 1, 2010 and Detroit Edison had only a limited time to pursue alternative processes or suppliers. Further, Detroit Edison was not aware of any other supplier that was willing to make this type of investment at the time the REF project needed to move forward given the existing legislation.
>
> In addition, at the time that Detroit Edison entered into discussions with DTEES to supply REF for Belle River Power Plant, DTEES was one of only three known licensees for the provision of the proprietary technology and DTEES held an exclusive license to use the unique and proprietary chemical additive technology, ChemMod, at Detroit Edison sites.

Mr. Lapplander adds another reason why Detroit Edison "moved forward with" DTEES; that DTEES "had already reached a similar agreement with the Michigan Public Power Agency (MPPA), a partial owner of the Belle River Power Plant". 2 Tr 61. At 2 Tr 61, Mr. Lapplander continues by asserting that:

> The MPPA is an unaffiliated entity that negotiated at arms-length with DTEES. The MPPA had no particular incentive to reach an agreement with DTEES as opposed to reaching an agreement with any other unrelated third party. As such, the agreement reached with the MPPA was rightfully considered to represent the market for a business deal of this nature.

During discovery, when asked to "explain what steps Detroit Edison took to ensure that [its negotiations with DTEES and the Fuels Companies] took place at armslength", Mr. Lapplander stated that "it was [his] responsibility to lead the negotiations on behalf of Detroit Edison and at all times [he] acted in the best interests of Detroit Edison and . . . was never under pressure or duress to do otherwise." Exh MEC-17.

During live cross-examination the following colloquy took place, at 2 Tr 187:

> Q. [By Bzdock] Would you have done this -- representing Detroit Edison, would you have done a deal with this identical structure with fuel companies owned by CMS Energy?
> A [By Lapplander] That potential exists, yes.
> Q When you say that potential exists, does that mean you don't know if you would or you wouldn't, but it's possible?
> A Anything's possible. If I can do a deal and save my customer money, I would entertain that deal, yes.

Contrary to his statements, Mr. Lapplander's demeanor, during live testimony, left the strong impression that no realistic likelihood existed for the REF Project to have been undertaken with an unaffiliated company. Furthermore, there is no evidence to suggest that Detroit Edison sought arrangements with anyone other than its affiliates.

Detroit Edison provides additional justification for its decision, by citing a reduction in working capital expense by not carrying its coal inventory, a

reduction in NO_X emission allowance expense, and that PSCR customers will never pay more than the value of the environmental benefits received. 2 Tr 61-62.

With regard to why Detroit Edison chose the MFC to provide REF at the MPP, Mr. Lapplander states, at 2 Tr 62:

> DTEES, the parent of the MFC, offered an attractive proposal for siting a REF facility at Monroe. The agreement between Detroit Edison and the MFC provides for a Coal Fee Rate payable to Detroit Edison for each ton of REF purchased. In my opinion, this Coal Fee Rate is economically favorable to Detroit Edison and its customers and is at a level which approximates market. The agreement with MFC further provides for the retention of all environmental benefits by Detroit Edison and a reduction in working capital as a result of the MFC owning a portion of the Monroe Power Plant inventory. In addition, DTEES holds an exclusive license to use the unique and proprietary chemical additive technology, ChemMod, at Detroit Edison sites.

If all goes as planned, the total possible benefit to Detroit Edison's customers of the reduced capital expense, the Coal Fee Rate, and emissions savings could reach 140 to 165 million dollars. 2 Tr 176-77.

In December 2009, Detroit Edison sold 1.7 million tons of coal to BRFC and SCFC for $38.6 million. 2 Tr 63. In January 2011, Detroit Edison sold an additional 714,000 tons of coal to SCFC at a price of $19.6 million. 2 Tr 64. At the end of the 10-year REF program, any remaining coal inventory will be sold back to Detroit Edison. 2 Tr 63. Because of Detroit Edison's December 2009 coal sale, customers are saving approximately $4 million in the form of lower base rates. 2 Tr 64.

Detroit Edison provides coal handling and consulting services for the BRFC and SCFC. Under the Coal Handling and Consulting Agreement, for a fee,

Detroit Edison will "perform all functions related to the delivery of coal to the BRPP and SCPP", including "all fuel procurement, fuel processing and fuel handling activities including consumption forecasting, specification of coal quality, coal purchasing, coal transportation, coal shipment scheduling, receiving and unloading of coal, coal sampling and analysis, coal stockpile management and maintenance, etc." 2 Tr 64-65. At 2 Tr 65, it is explained that:

> Coal handling and consulting services are provided by Detroit Edison at cost to the Fuel[s] Companies to support the processing and delivery of REF to the Belle River and St. Clair Power Plants. . . . [T]he costs of these services are a zero-sum proposition with costs charges to the Fuels Companies ultimately flowing back to Detroit Edison as REF is purchased.

While somewhat unclear from the record presented, it appears that Detroit Edison has entered into Refined Coal Supply Agreements with the Fuels Companies that cover both the BRPP and SCPP. See 2 Tr 65-66. At 2 Tr 65-66, it is explained that, under the Refined Coal Supply Agreement:

> After the coal is processed and treated by the Fuels Companies, the REF will be sold and delivered to BRPP and the SCPP for "just in time" consumption. The REF sale transaction will be priced out at the fully allocated cost at which Detroit Edison sold the coal to the Fuels Companies plus an REF adder.

Detroit Edison does not clearly describe the structure of the Adder and the contract or contracts that would define the Adder were not entered into evidence. At 2 Tr 66, Detroit Edison's witness, Mr. Lapplander explains his understanding of the Adder by stating:

> The REF adder will consist of several components: (1) an adjustment amount related to fly ash disposal costs designed to keep Detroit Edison whole for any incremental fly ash disposal costs (beginning in January 2011); (2) an adjustment amount related to fly ash revenue (beginning in January 2015); (3) an

> adjustment amount based upon and no greater than Detroit Edison's reduction in actual SO_2 emission allowance expense (beginning in January 2011); and (4) an adjustment amount based upon Detroit Edison's reduction in actual mercury emission expense (beginning in January 2015). The latter two adjustments combined are capped at the Fuel Companies' revenue requirement.

At 2 Tr 318, Detroit Edison's witness, Mr. Good explains that:

> At Detroit Edison's [BRPP and SCPP], the additional PSCR cost for [REF] is limited to the lower of the PSCR benefit of reduced SO_2 and mercury emissions associated with the consumption of the [REF] or the revenue requirement associated with the REF Project production facility. Thus, the cost of the [Adder at BRPP and SCPP] will be zero until such time as the plants experience an actual and measurable reduction in SO_2 or mercury emissions. Once the plants experience reduced emissions, the cost of the . . . Adder will be capped at the revenue requirement associated with the REF Project facility. Once the calculated cost of the . . . Adder reaches this cap, any additional benefits of reduced emission allowances will flow directly through to the PSCR customers.

However, in Exhibit A-21, Detroit Edison explains the calculation of the Adder with the following equation:

> [REF Adder] = Minimum (DECo Environmental Benefit, SCFC's Revenue Requirement) + DECo Avoided Hg Capital Amortization[17]
>
> Where, DECo Environmental Benefit = DECo SO_2 Benefit + DECo Mercury benefit + DECo Fly Ash Benefit

This record leaves questions regarding the components of the Adder. First, Exhibit A-21 indicates that, in addition to paying an amount equal to its SO_2 and Hg emission control savings (capped at the Fuels Companies' revenue requirements), Detroit Edison will pay the Fuels Companies for its "[a]voided Hg [c]apital [a]mortization". Detroit Edison provides no further explanation of this cost and it does not appear to have been mentioned in any testimony. Additionally,

[17] A similar formula is found in Exhibit A-22.

because of the contradictions between the testimony and the exhibits, it is unclear whether the fly ash component of the Adder is part of the costs to be capped by the revenue requirements. Finally, while it appears that the Adder is calculated separately for each power plant, this arrangement is not made entirely clear.

Since January, 2011, the SCFC has been invoicing Detroit Edison for REF under the Refined Coal Supply Agreement. 2 Tr 66. For the SCPP, the maximum charge for the Adder is capped at the REF Project's revenue requirement; estimated at $11,112,482.01 for 2011. 2 Tr 67. However, for 2011, the estimated Adder cost was negative $35,717.42 because of increased fly ash disposal costs. 2 Tr 67. Exh A-22. The value of SO_2 emission related savings at SCPP is currently considered de minimus.[18] 2 Tr 162.

The current status of the arrangements between Detroit Edison and BRFC were not clearly explained. While Detroit Edison has sold some of its coal inventory to BRFC, it appears that Detroit Edison is not paying the Adder because the facility is still in testing. 2 Tr 161. Mr. Lapplander explains, at 2 Tr 161, that Detroit Edison "assume[s] in this filing that in 2015 [it will] begin consuming REF under [its] contracts and the refined coal agreement would be in place and [Detroit Edison] would start paying [the Adder]." 2 Tr 161.

For the MPP, the REF Project contractual arrangements differ from those at SCPP and BRPP. Detroit Edison still pays MFC for coal at the fully allocated cost at which Detroit Edison sold the coal to the MFC and will retain the savings from any reduced SO_2 and Hg emissions. 2 Tr 69. Different, however, is that

[18] For 2011, this amounted to $544 which was credited to the SCFC as part of the Adder. 2 Tr 161.

MFC pays Detroit Edison a Coal Fee Rate (CFR) that is based upon the tonnage of REF either purchased or produced. 2 Tr 69. Exh MCAAA-7. Additionally, unlike at the SCPP and BRPP, Detroit Edison provides coal handling and consulting services, at cost, to the MFC with no buy back provision. Exh A-23.

The record is not entirely clear as to what the CFR payment represents. At 2 Tr 71, Mr. Lapplander indicates that the CFR is compensation for Detroit Edison's provision of coal handling and consulting services and he states that:

> These functions, which Detroit Edison has always performed, cover all fuel procurement, fuel processing and fuel handling activities including consumption forecasting, specification of coal quality, coal purchasing, coal transportation, coal shipment scheduling, receiving and unloading of coal, coal sampling and analysis, coal stockpile management and maintenance, etc.

However, as indicated above, Exhibit A-23 shows the coal handling and consulting services as being a separate transaction being provided to the MFC, at cost.[19] In Exhibit MCAAA-7, the CFR is described as a "credit to the PSCR and Monroe O&M". Similarly, in Exhibit A-23, the CFR is described as being "[s]plit between incremental O&M and fuel expense." However, Detroit Edison's witness, Mr. Good, testified that the CFR is a "discount . . . used to provide the PSCR customer a fuel savings." 2 Tr 318. In Exhibit A-2 Revised, the CFR is referred to as the "REF Fuel Discount" and is accounted for as a negative cost of fuel. In his rebuttal testimony, Mr. Lapplander further clouds the issue by stating that "for the Term of the agreement which is through 2021", the "Coal Fee Rate is

[19] Exhibit A-23, p 5, includes a footnote that is unattached from the text above it and may refer to the relationship between the handling and consulting services and the CFR.

a fixed per ton value and there exists no other derivative for computation." 2 Tr 85. Any contracts covering the CFR were not entered into evidence.

Thus, on this record, it appears there is no relation between actual increased O&M costs, the actual value of coal handling and consulting services provided, and the amount paid by MFC under the CFR. Because of the inconsistent evidence presented, it remains unclear what the CFR actually represents. Further, there is insufficient evidence to establish that Detroit Edison is being properly compensated for the provision of coal handling and consulting services to MFC and/or Project related O&M costs.

At the time of filing, MFC facilities have been constructed and integrated into the MPP coal delivery process, Detroit Edison had sold a portion of its coal to the MFC, Detroit Edison was receiving REF on a "'just in time' delivery basis" from MFC, and Detroit Edison was providing coal handling and consulting services to MFC. 2 Tr 68-69, 70. Detroit Edison has sold 250,000 tons of its MPP coal inventories and 48,000 tons of coal-in-transit to MFC at booked costs of $15.6 million. 2 Tr 70.

If base rates are reset to account for the change in coal ownership, Detroit Edison's PSCR customers should realize reduced costs because of Detroit Edison not carrying the fuel inventory on its book. 2 Tr 71. Under the Project's arrangements, MFC will take ownership of all MPP coal as it enters rail cars for rail deliveries and FOB vessel for water deliveries. 2 Tr 70. MFC will purchase the coal at the same price Detroit Edison would pay for it. 2 Tr 71. Detroit Edison

claims the MFC will reimburse it for all transportation costs.[20] 2 Tr 71. While ownership is with MFC, "the coal always remains under the supervision and control of Detroit Edison and MERC". 2 Tr 70. "At the end of the 10-year REF consumption period, the remaining coal inventory will be resold to Detroit Edison at the MFC's book cost." 2 Tr 71.

To explain the reason for the different arrangement at MPP, Detroit Edison's witness, Mr. Lapplander explains, at 2 Tr 69-70, that:

> [His] understanding is that [IRS issued] guidance provided that reduced emissions fuel projects no longer had to generate a 2-3% internal rate of return to earn the production tax credits. It was this requirement that had prevented the Coal Fee Rate structure from being offered on the arrangements at the St. Clair and Belle River Power Plants.

For the SCPP, BRPP, and the MPP, Detroit Edison and the Fuels Companies have entered into Environmental Indemnity Agreements to provide "environmental indemnity protection" and License and Services Agreements, under which Detroit Edison is paid for providing, "among other things, potable water, sanitary sewer and storm water disposal to the Fuels Companies".[21] 2 Tr 68. 2 Tr 71-72.

Transfer Price

In Exhibit A-16, Detroit Edison provides its projections for Act 295 renewable power purchases. Detroit Edison explains, at 2 Tr 247-48, that:

> The expense associated with each renewable purchase approved, or assumed to be approved, prior to 2012 is based on the transfer price schedule approved by the Commission in Case

[20] This claim is not sufficiently supported by factual evidence to be confirmed.
[21] In Exhibit A-23, this is referred to as a "Site Fee" and, for the SCPP and BRPP, it is stated that, in part, it covers "incremental O&M . . . identified by [Detroit Edison]".

No. U-15806-RPS Exhibit A-8 (JHB-4). The expense associated with each renewable purchase assumed to be approved in 2012 and beyond is based on the transfer price schedule presented in Case No. U-16582 Exhibit A-7.

In Case No U-16582, the Commission declined to approve the same transfer price that is presented in this case. *On The Commission's Own Motion,* Case No U-16582, Order, p 16 (Dec 20, 2011). The Commission has indicated that Detroit Edison's transfer price schedule will be determined in Case No. U-16656. *On The Commission's Own Motion,* Case No U-16582, Opinion and Order, p 6 (Sept 11, 2012).

POSITIONS OF THE PARTIES

Introduction

Detroit Edison argues that it has "clearly demonstrated that its PSCR plan is reasonable and prudent." Detroit Edison Init Br, p 21-22. At Detroit Edison Init Br, p 22-23, for relief, Detroit Edison requests issuance of a Commission order that would:

- approve Detroit Edison's PSCR Plan and maximum PSCR Factor of 4.18 mills per kWh;
- indicate whether the Commission is unlikely to permit recovery of Hg emission related expenses, starting in 2015;
- approve Detroit Edison's 5-year PSCR forecast;
- approve Detroit Edison's Transfer Price for renewable energy, and;
- approve the REF Project and related expenses.

MEC raises "two principle issues" regarding Detroit Edison's Application. First, MEC argues that Detroit Edison has failed to establish "that the decisions underlying its 5-year forecast are reasonable and prudent, particularly given its failure to reasonably plan to adjust to the forecasted increase[] in the cost of coal generation in comparison to other energy resources." MEC Init Br, p 7-8. Second, MEC argues that Detroit Edison has failed to establish that the REF Project is reasonable and prudent because Detroit Edison has failed "to provide sufficient information to review the Project's structure and the information it has provided suggests that unregulated subsidiaries of Detroit Edison's parent company stand to benefit from the Project out of proportion to the extent that ratepayers benefit." MEC Init Br, p 8.

With regard to the 5-year forecast, MEC argues that, "despite evidence projecting that the PSCR costs of Detroit Edison's coal units will likely increase relative to the cost of other generation sources, Detroit Edison has failed to present evidence of reasonable and prudent planning to adjust to these market changes." MEC Init Br, p 8. MEC argues that utilities in nearby states are planning to retire coal fired generation units and that Detroit Edison "has not set forth any evaluation of whether retiring and replacing some of its aging coal units would minimize PSCR costs and has offered only conflicting statements regarding its plans for those units." MEC Init Br, p 9. MEC concludes that, "[a]s a result of these failures, the Commission should indicate that based on present evidence it is unlikely to permit full recovery of the PSCR costs for continued operation of Detroit Edison's aging coal units." MEC Init Br, p 9.

MCAAA argues that Detroit Edison's "request for approval of the REF [P]rojects [should] be denied" and that "appropriate ratemaking remedies should be adopted to credit . . . PSCR costs with the revenues derived by the fuel companies". MCAAA Init Br, p 47. In addition, MCAAA argues that Detroit Edison "has not adequately supported recognition of the $7.9 million of SNF fee costs" and that this cost should be disallowed. MCAAA Init Br, p 47. In addition, MCAAA asks that the ruling striking the testimony of its witness, Ronald Callen, be reconsidered and reversed. MCAAA Init Br, p 47.

The Attorney General recommends that the Commission disallow REF Project costs in the PSCR Plan and designate the projected Hg emission reduction costs as costs for which recovery through the PSCR is not likely to be permitted.

"Staff did not find the proposed PSCR plan and factor to be unreasonable or imprudent." Staff Init Br, p 4. Staff argues that, in response to the Commission's direction in Case No U-16434, Detroit Edison "further supported the REF project" and "provided a discussion of the REF projects compliance with the Code of Conduct." Staff Init Br, p 5-6. Staff "supports Detroit Edison's implementation of the REF process in the 2012 PSCR plan year." Staff Init Br, p 7.

MEC's Assertion that Detroit Edison has Failure to Plan for Increased Coal Costs

MEC argues that Detroit Edison has failed to reasonably and prudently plan for increases in the cost of coal. MEC Init Br, p 9-12. MEC argues that there are "four primary lines of evidence supporting this: increased coal costs;

current and projected decline in the price of natural gas in comparison to the projections included in Detroit Edison's filing; the aging of Detroit Edison's coal units; and the availability of cost-effective demand-side management." MEC Init Br, p 9.

To support it's argument, MEC points to: 2112 coal costs anticipated to be 9% higher than actual 2011 costs; current and projected low natural gas prices, and; Detroit Edison's projection that the delivered cost of coal will rise approximately 33% over the course of its 5-year forecast, from $2.63 per MMBtu in 2012 to $3.49 per MMBtu in 2016. MEC Init Br, p 10. Thus, MEC argues, "evidence in this case indicates that natural gas will likely remain as cheap, if not cheaper, to dispatch than coal over the next several years." MEC Init Br, p 10. MEC adds that the 5-year forecast does not "appear to reflect serious planning to build or purchase additional natural gas capacity that would allow for the phasing out of aging and likely uneconomic coal units." MEC Init Br, p 12. MEC notes that "[w]hile Detroit Edison's 5-year forecast references a natural gas combined cycle plant coming online in 2015, Detroit Edison has not announced any evaluation or planning for such a plant, and a Detroit Edison witness referred to inclusion of a new natural gas plant in the 5-year forecast as merely a 'placeholder.'" MEC Init Br, p 12

MEC adds that the "projected increase in the cost of coal does not appear to include environmental compliance costs, which are expected to rise as regulations such as the Cross State Air Pollution Rule ("CSAPR") and the MATS rule go into effect." MEC Init Br, p 10. MEC argues that none of Detroit Edison's

Harbor Beach, Trenton Channel, St Clair, and River Rouge plants have pollution controls in place that would allow them to meet standards in the MATS rule for mercury and acid gas emissions. MEC Init Br, p 10-11. "Accordingly, any attempt to bring these coal units into compliance with EPA standards will result in higher PSCR costs." MEC Init Br, p 11. MEC states that, "[i]n short, the PSCR costs attributable to purchasing coal and the sorbents and/or chemicals needed to control emissions from burning coal, as well as the operating costs for the coal units, are projected to increase significantly during the course of the 5-year forecast." MEC Init Br, p 11.

MEC notes that the "5-year forecast does not refer to any evaluations of expanding the use of demand-side management or significantly increasing the use of renewable energy." MEC Init Br, p 12. MEC adds, that rather than "adjusting to a market with higher coal costs and lower costs for other energy resources," Detroit Edison is focused "on limited testing of pollution control additives on existing coal units to determine whether such units can be brought up to the MATS standards." MEC Init Br, p 13. MEC argues that "even if DSI ends up being adequate to bring some . . . units into compliance, such testing does not supplant the need for an evaluation of whether retiring and replacing some . . . aging coal units would be a reasonable and prudent way to minimize Detroit Edison's 5-year PSCR costs." MEC Init Br, p 13. As MEC sees it, at MEC Init Br, p 11-12:

> The PSCR costs to comply with CSAPR and the MATS rule could be virtually or entirely avoided by retiring particular coal units and replacing their energy and capacity with demand-side management, natural gas combined cycle, and other generation

> sources. Yet Detroit Edison has failed to set forth any evaluation of whether it would be more beneficial to ratepayers to pay the higher PSCR costs (along with the significant capital costs those units face) for particular coal units than it would be to retire and replace those aging units with newer energy resources.

In response, Detroit Edison argues that, "[i]n general, . . . the projection used for the 2012 PSCR Plan shows total coal expense increasing slowly only from 2011 to 2014 after which the projected total coal expense drops to lower levels from 2014 to 2016." Detroit Edison Rep Br, p 23. Detroit Edison argues that "there is no consensus around coal mine mouth prices increasing in 2015 and 2016. Therefore, MEC/NRDC's projection of a price increase during the 5-year forecast period is just one of many possible future outcomes in coal prices, but it is really nothing more than opinion and conjecture to support such a projection." Detroit Edison Rep Br, p 24.

With regard to natural gas prices, Detroit Edison argues that there is great uncertainty with regard to future prices. In addition, at Detroit Edison Rep Br, p 25, Detroit Edison adds:

> To the extent that gas prices and/or other factors drive wholesale power market prices down, Detroit Edison's coal plants economically reduce operation based on these market drivers. Detroit Edison is diversifying its generation portfolio further toward renewables as a result of Act 295 and participation in the MISO market is providing access, to some degree, to the presently lower natural gas prices. Detroit Edison is operating and forecasting reasonably and prudently based on existing native generation sources, laws and market circumstances, especially in light of the fact that MISO currently has substantial excess capacity.

Detroit Edison adds, at Detroit Edison Rep Br, p 26-27, that:

> Detroit Edison is positioned to shield itself from fuel price volatility and has diversified its energy mix as part of its fuel procurement strategy, the results of which are reflected in the 2012

> PSCR Plan testimony. Many different fuels are planned to be used, including various fossil fuels as well as nuclear and renewables. Furthermore, . . . the PSCR statute makes clear that the reasonableness and prudence of the Company's PSCR Plan is to be judged based upon *"the cost and availability of the electrical generation available to the utility and the cost of short term firm purchases available to utility…,"* not some speculative, retrospective ideal that ignores present reality and assumes away both present and future volatility.

Next, MEC argues that Detroit Edison's "treatment of its coal units is inconsistent at best." MEC Init Br, p 13. To support this position, MEC states, at MEC Init Br, p 13, that:

> Detroit Edison's initial filing assumed the "possible retirement" of River Rouge Units 1 and 2, St. Clair Unit 7, Trenton Channel Units 7, 8, and 9, and Harbor Beach. But in a February 7, 2012 update to investors, Detroit Edison identified only 4% of its coal fleet as retiring. During cross-examination, Detroit Edison witness Wojtowicz noted that Detroit Edison had never submitted requests for MISO to evaluate the reliability impacts of retiring River Rouge Units 2 and 3, St. Clair Unit 7, or Trenton Channel Units 7 and 9, and had withdrawn all such requests except with regards to Harbor Beach. Witness Rogers identified River Rouge Units 1 and 2, St. Clair Unit 7, and Trenton Channel Unit 9, among others, as candidates for use of dry sorbent injection ("DSI") and activated carbon injection ("ACI") for compliance with the MATS rule.

MEC argues that Detroit Edison's "inertial approach stands in stark contrast to how other utilities are responding to changes in the electricity market." MEC Init Br, p 14. MEC argues that, in the past year, other utilities have filed notices with PJM to deactivate nearly 15,000 MW of capacity. MEC Init Br, p 14. MEC argues that Detroit Edison's "inertia" is already costing customers as "MISO is dispatching natural gas units ahead of coal units." MEC Init Br, p 14-15. After citing Consumers Energy's recent canceling of certain coal contracts, MEC argues, at MEC Init Br, p 15-16, that:

> Detroit Edison, meanwhile, has done little to nothing to adjust to these changes in the market, since Detroit Edison's generation portfolio is dominated by coal-fired units. More importantly, the 5-year forecast demonstrates that Detroit Edison is not taking prudent steps to diversify its generation portfolio away from coal in response to changing market and regulatory conditions that are expected to make coal-fired units less competitive economically.
>
> The Commission should indicate that, based on the 5-year forecast and other evidence submitted by Detroit Edison and the parties, the Commission is unlikely to authorize full recovery of Detroit Edison's projected coal costs in later years of the 5-year forecast because of Detroit Edison's lack of planning for foreseeable changes that will make its coal-fired units less competitive. Second, the Commission should make clear to Detroit Edison that it is unlikely to authorize recovery of PSCR costs associated with pollution controls at Detroit Edison's coal units if Detroit Edison does not demonstrate that the costs are part of a least-cost plan for complying with regulatory standards in light of the cost and feasibility of replacing specific coal units with demand side management, renewable energy, and increased use of natural gas combined cycle capacity to the extent necessary.

Detroit Edison characterizes MEC's "inertial" arguments as "simply not credible". Detroit Edison Rep Br, p 27. Detroit Edison argues that MEC "fails to point out the uncertainty behind the other utilities' announced retirements" and that "over 5,500 MW of the other utilities' announced coal-fired generating unit retirements were retracted as of March 2012". Detroit Edison Init Br, p 27. As Detroit Edison sees it, utilities are continuing to evaluate the need to retire coal-fired generating because of the uncertainty surrounding the EPA regulations. Detroit Edison Init Br, p 27.

Detroit Edison sums up its response to the MEC's arguments by stating, at Detroit Edison Rep Br, p 27, that:

> The Company has put forth a reasonable 5-year PSCR plan in light of substantial uncertainty in the electric marketplace. Due to the great amount of uncertainty around important variables such as EPA rules, wholesale market rules, fuel prices, and renewable

> energy mandates . . ., long-term generating unit plans are also uncertain. When the Company files its 2013 PSCR Plan, it may very well have different projections based on many of the changing circumstances that MEC/NRDC points out.

REF Project

Detroit Edison argues that the REF Project "is a reasonable and prudent way of achieving the maximum reductions for the minimum cost, from a business point of view." Detroit Edison Init Br, p 16. Detroit Edison points to the testimony of Mr. Lapplander as providing an explanation of "the numerous reasonable and prudent reasons why Detroit Edison did not do the REF project itself, including, but not limited to, the capital expenditures that would have to be made by Detroit Edison, the tax risks and IRS Rules, and the technology risks at its power plants." Detroit Edison Init Br, p 16. Detroit Edison adds, at Detroit Edison Init Br, p 16 (citations omitted), that:

> On a total rate basis (base rates plus PSCR) there are no costs of the REF project to Detroit Edison customers. On a PSCR basis the costs of the REF project to Detroit Edison customers are effectively zero *or less* and constitute a risk free option to help Detroit Edison attain the mercury emission reduction requirements contained in Michigan Rule 1503 beginning in 2015. However, additional benefits inure to Detroit Edison customers immediately. The benefits to Detroit Edison customers include an immediate multi-million dollar reduction in annual working capital expense through sale of a portion of Detroit Edison coal inventory to the Fuels Companies. Detroit Edison customers are experiencing this benefit right now, every year, through reduced Detroit Edison base rates. Another benefit that also occurs immediately is that REF reduces mercury emissions now even though mercury (Hg) is not a regulated emission until 2015.

Detroit Edison continues by arguing that, at the SCPP, customers will never pay more for the REF than the value of the environmental benefits and

that, in 2012, Detroit Edison is projected to pay $416,000 for the Refined Coal Adder; a figure equivalent to the projected SO_2 emission savings. Detroit Edison Init Br, p 17. For the MPP, Detroit Edison highlights the CFR, which lowers the price of REF, and the possibility of "future reductions in annual working capital expense through sale of a portion of Detroit Edison coal inventory to the Monroe Fuels Company when base rates are reset." Detroit Edison Init Br, p 17. Detroit Edison notes that all environmental benefits at MPP will be retained by Detroit Edison and that, for 2012, Detroit Edison projects these to be worth $1.12 million. Detroit Edison Init Br, p 17. Detroit Edison argues that the value of the REF Project to its customers is "$160 million or more". Detroit Edison Rep Br, p 30.

Next Detroit Edison argues that the REF Project "is also a reasonable and prudent way of achieving the maximum reductions for the minimum cost, from a technical point of view." At Detroit Edison Rep Br, p 32-34 (citations omitted), Detroit Edison explains:

> Over the course of a decade, a variety of mercury compliance alternatives have been investigated, tried and considered by Detroit Edison. The Company worked with the industry . . . and hosted several development and demonstration projects at Detroit Edison facilities that furthered the state of the art. The Company studied ACI, ACI-enhancing technologies, FGD, Selective Catalytic Reduction ("SCR") and various multi-pollutant technologies. The Company also worked with multiple third party technology developers.
>
> As a result of these decade-long efforts, the Company has determined that the most cost-effective mercury reductions will occur as a co-benefit through the combination of Wet FGD systems (installed primarily for reduction of SO_2) and SCR systems (installed primarily for reduction of NOx) at the Monroe Power Plant. REF improves the operation and efficiency of the Wet FGD system at the Monroe Power Plant, avoids capital expenditures by Detroit Edison, and removes the need for additional costly additives to achieve full mercury control requirements.

> At the Company's other coal-fired plants that do not have Wet FGD systems, . . . the most cost effective means of mercury reductions will be achieved with installation and operation of ACI systems. REF improves the economics of the operation of these ACI systems by permitting use of a less expensive form of powdered activated carbon in operation of the ACI system.
>
> . . . Use of REF will result in reduced NOx, SO_2, and mercury emissions. NOx emissions can be impacted by various factors, so it is difficult to measure precise levels of NOx reduction related to REF. Irrespective of this challenge, any reduced NOx benefits from REF will flow to PSCR customers. Nevertheless, the SO_2 emissions are projected to decrease by 1,518 tons in 2012 due to the use of REF resulting in an associated increase of CSAPR SO_2 allowance sales of $1.5 million and associated decrease of Acid Rain SO_2 allowance expense of $19,586 as shown on Exhibit A-19 Pages 1 and 2.

Staff indicates that it has reviewed the REF Project and "supports Detroit Edison's implementation of the REF process in the 2012 PSCR plan year. Staff Init Br, p 7. Staff believes Detroit Edison is in compliance with the Code of Conduct. Staff Init Br, p 7. Staff states that Detroit Edison "discloses every coal sale to its affiliates in its Affiliate Transaction Compliance report in Case No. U-13502." At Staff Init Br, p 7, staff concludes by stating:

> Detroit Edison continues to update Staff regarding the statutes [*sic*] of the REF project . . . . Detroit Edison has . . . indicated that its decision to move forward with the REF project will not impact the Company's requested maximum PSCR factor for 2012. Based on the record presented, it appears that the intent of the REF project is not to increase costs for Detroit Edison's ratepayers and its purpose to help the utility comply with environmental regulations. Thus, Staff agrees with Detroit Edison's approach to reducing emission reductions and reducing the need for emission allowances.

MEC, however, argues that Detroit Edison has failed to establish that the REF Project is reasonable and prudent. MEC Init Br, p 16-36. MEC argues that there are three primary reasons the REF Project should be rejected. First, MEC

argues that Detroit Edison has "fail[ed] to provide sufficient evidence regarding the technological and business aspects of the REF Project in direct contravention of the Commission's Order in Detroit Edison's 2011 PSCR Proceeding, Case No. U-16434". MEC Init Br, p 16. Second, MEC argues that "the information that is provided suggests that the REF Project is not reasonable and prudent because Detroit Edison has not taken all appropriate actions to minimize the cost of fuel". MEC Init Br, p 16. Third, MEC argues that the "affiliate transactions associated with the REF Project violate both the letter and the spirit of the Code of Conduct . . . and the Affiliate Transactions Guidelines". MEC Init Br, p 16-17.

MEC argues that Detroit Edison has failed to establish if and to what extent the REF will reduce mercury emissions. MEC Init Br, p 22-23. In addition, MEC argues that "information regarding the proceeds, structure and ultimate recipient of the sale of the tax credit interest is necessary to evaluate whether Detroit Edison has satisfied its statutory responsibility to take appropriate actions to minimize the cost of fuel." MEC Init Br, p 23. MEC continues by arguing that, under MCL 460.6j(6), the test to be applied is "'whether the utility has taken all appropriate actions to minimize the cost of fuel'" rather than Detroit Edison's justification for the program "that the overall cost to . . . Detroit Edison . . . is (allegedly) zero". MEC Init Br, p 25.

MCAAA is in general agreement with this portion of MEC's position and argues, at MCAAA Init Br, p 19, that:

> [T]he REF transactions should not be approved because [Detroit Edison] has refused to provide many important details concerning these projects, and the revenue and ratemaking impacts relating thereto, despite extensive discovery propounded by the

> parties in this case and in previous cases. [Detroit Edison] still refuses to provide critical information regarding access to the books and records of the fuel[s] companies, concerning the entire amount of revenues derived (or to be derived) from monetizing the tax credits or other benefits relating to the REF projects, and related information to disclose the immense impact that these arrangements have relative to Act 304 fuel costs and rates. The immensity of the economic issues, involving potentially many hundreds of millions of dollars, and the scarcity of information provided by [Detroit Edison], justifies the continued rejection of these projects, subject to ratemaking reconciliations to protect ratepayers in [Detroit Edison's] Act 304 reconciliation proceedings for each and every year that such projects are in existence.

In response, Detroit Edison argues that the "evidentiary record . . . contradicts MEC/NRDC's and MCAAA's general assertion that . . . Detroit Edison . . . failed to provide additional information regarding REF costs as requested by the Commission in the U-16434 Order." Detroit Edison Rep Br, p 40. To support this argument, at Detroit Edison Rep Br, p 41, Detroit Edison provided the following table quantifying and comparing the REF related pre-filed testimony in Case No U-16434 and Case No U-16892.

	PSCR Plan Case No. U-16434	PSCR Plan Case No. U-16892
Witnesses	2	5
Pages	20	52
Paragraphs	66	228
Lines	438	1,413
Words	4,439	13,755

Furthermore, Detroit Edison adds that, in this case, its witnesses were subject to cross-examination and that it answered discovery requests from MCAAA. Detroit Edison then states, at Detroit Edison Rep Br, p 41-42:

> Therefore, any assertion . . . that Detroit Edison failed to comply with the Commission's final order in MPSC Case No. U-16434 requiring additional information in support of the REF proposal is not only meritless, but also disingenuous and casts the remainder of MEC/NRDC's and MCAAA's objections to the REF costs as nothing more than hyperbole that has little credibility and warrants minimal consideration . . . .

Staff takes the position that, in response to the Commission's direction in Case No U-16434, Detroit Edison "further supported the REF project" and "provided a discussion of the REF projects compliance with the Code of Conduct." Staff Init Br, p 5-6.

Next, MEC argues that Detroit Edison has failed "to take all appropriate actions to minimize the cost of [REF]." MEC Init Br, p 25. MEC outlines this argument, at MEC Init Br, p 25, by stating:

> [T]he available evidence indicates that the Fuel[s] Companies will reap huge financial benefits from the REF Project, whereas in comparison, Detroit Edison's benefits are relatively small. Given this disparity, it would have been reasonable and prudent to negotiate a re-purchase price for the [REF] that was below cost to ensure that the rate payers realized a portion of the economic benefit of the REF Project. Instead, the current structure enables the shareholders to retain nearly all of the benefit for themselves at the expense of the rate payers.

MEC estimates that the Fuels Companies stand to profit in excess of $300 million from the REF Project. MEC Init Br, p 25-28. With regard to the benefits to Detroit Edison, MEC estimates $5-6 million per year in REF Fuel discounts at MPP and, over the course of the ten year project, an additional $160-165 million

working capital benefit. MEC Init Br, p 28. With regard to the benefits from NO_X, SO_2, and Hg emission reductions, MEC argues that Detroit Edison has failed to establish the amount of the emission reductions and that the "REF is the most reasonable and prudent way of achieving the maximum mercury reductions for the minimum cost." MEC Init Br, p 28-31. At MEC Init Br, p 31, MEC sums up this argument by stating:

> Conservatively, the Fuel Companies are likely receiving well over $300 million over the life of the program. This includes $266 million at the 2011 tax credit rate and all amounts reimbursed for operating costs, as well as up to an additional $6 million in future years if the emissions savings to Detroit Edison exceed the operating expenses (up to the revenue requirement cap). It also includes some amount of benefits from the inflation adjustment to the tax credits. Given that the value of the tax interest sold was initially $234 million, and that a change in 28 cents of tax credit resulted in an additional $32 million to the Fuel Companies, these are significant additional benefits. Additionally, the unnamed tax credit partners are obtaining more than $234 million in tax credits. On the other hand, Detroit Edison is receiving somewhere between $140 and $165 million. . . . Given this great disparity, the only reasonable and prudent course of action would have been for Detroit Edison to negotiate a buy-back provision for less than cost in order to ensure that the rate payers shared in the financial benefit of the REF Project. Because the Company failed to do so, the . . . Commission [should] deny approval of the REF Project.

To this argument, Detroit Edison responds, "[w]hether there is a disparity in the allocation of the production tax credits between Detroit Edison and the Fuel Companies or any third party investor is entirely beside the point." Detroit Edison Rep Br, p 43. Detroit Edison explains that, pursuant to the Internal Revenue Code, it did not qualify for the tax credits and that "comparing the benefits received by Detroit Edison customers with the tax credits allocated to Fuels

Companies or any 3rd Party Investors constitutes the proverbial 'apples to oranges' comparison." Detroit Edison Rep Br, p 43.

MEC next argues for rejection of the REF project because "the information that is available suggests that these transactions violate both the letter and the spirit of the [Affiliated Transaction] Guidelines and the Code [of Conduct]." MEC Init Br, p 32. After providing background information about the adoption of the Code of Conduct and the Affiliated Transaction Guidelines, MEC argues, at MEC Init Br, p 33-36, that:

> Collectively, the Code and the Guidelines not only impose a set of specific requirements (such as the transfer pricing standard and the notification requirements) but also reflect an overarching desire to ensure that the interests of the un-regulated affiliates are not promoted over the public's interests. . . . Detroit Edison's transactions with the Fuel Companies violate both the former and the latter.
>
> First, it appears that Detroit Edison notified the Commission about the sale of its coal inventory at BRPP, SCPP and MPP to the Fuel[s] Companies only after the sale had occurred. These sales were well over the $100,000 that should have triggered the Guidelines pre-sale notification requirements. Yet [witness] O'Neill was not aware of any filing or disclosure to the Commission of the BRPP, SCPP and MPP fuel sales that would have been within 30 days prior to the sale itself.
>
> Second, it is likely that both the sale of the coal and the provision of coal-related services to the unregulated Fuel[s] Companies at Detroit Edison's cost violates the Code's and the Guideline's transfer pricing standard.
>
> Detroit Edison provides two slightly different rationales with respect to providing the coal at cost to the Fuel[s] Companies. Neither is particularly persuasive. [Witness] Lapplander initially suggested, "the Fuel[s] Companies will simply use the coal to produce REF and sell the REF back to Detroit Edison for consumption at the BRPP, SCPP and MPP and any adjustment to the sale price to reflect any higher market pricing would only serve to increase the resale price to Detroit Edison." However, if Detroit Edison and its unregulated-affiliates properly followed the transfer pricing standards, the Fuel[s] Companies sale of the coal back to Detroit Edison would have to be the lower of market price or 10%

over fully allocated embedded cost regardless of the price at which Detroit Edison sold the coal. In an attempt to answer a question regarding how one could establish a fair market value for a transaction that included an automatic buy-back guarantee, Lapplander then suggested:

> So pick Monroe, we're selling them – we're selling them coal at booked cost, we're buying it back at booked cost, so the effect on the customer is as though that transaction never took place. At St. Clair, we're selling at booked cost, we're buying it back at booked cost, and then you have the REF adder, which, as I said, last year was 500 bucks. So it's own, absent the REF adder, the transaction nets to no impact on anything because we're just sort of buying and selling coal at the same price.

In this "answer" Lapplander entirely ignores the value of both the buy-back provision and the REF adder (which . . . could ultimately yield up to $11 million). As important, he also misses the Code's provision that an electric utility is not meant to "directly or indirectly" subsidize the unregulated business of its affiliates. Detroit Edison is providing just such indirect subsidization by giving the Fuel[s] Companies the guaranteed opportunity to sell back the REF, whose sale will generate hundreds of millions of dollars in tax credits.

Detroit Edison's justification regarding the provision of coal-related services at cost is equally unsatisfying. Lapplander testified, "[t]he rationale for providing these services at cost is that these services are only supporting the provision of REF feedstock coal to the Belle River and St. Clair Power Plants, and these same costs eventually flow back to Detroit Edison." Yet again, this misses the point of the Code and the Guidelines. The issue is not simply the benefit that the regulated entity (here, Detroit Edison), will receive. It is also whether this regulated entity is subsidizing an unregulated affiliate (here, the Fuel[s] Companies). By providing its services at a lower price than it would otherwise offer, Detroit Edison is helping to subsidize the profits of the Fuel[s] Companies.

Finally, . . . Detroit Edison and Detroit Energy Services set up a series of business transactions with anonymous sales partners, undisclosed proceeds, guaranteed buy-backs and discounted pricing which ultimately resulted in a tax credit windfall for the Fuel[s] Companies. Hundreds of millions of dollars are being exchanged, and in large part, they are being retained by the unregulated affiliate. The Commission assured Michigan residents that it "intend[ed] to vigilantly enforce the code." The REF Project demands such vigilant enforcement. The [Commission] should therefore . . . deny approval of the Project.

Detroit Edison responds by stating that this argument is "meritless since the evidentiary record shows that neither the Code of Conduct nor the Affiliated Transaction Guidelines are violated by the REF project." Detroit Edison Rep Br, p 44. At Detroit Edison Rep Br, p 44-45, Detroit Edison explains that:

> [S]hipments of coal for consumption at the BRPP and SCPP will be sold at Detroit Edison's MERC transshipment facility. All rail shipments of coal for consumption at Monroe Power Plant will be sold FOB mine and all vessel delivered western coal for consumption at Monroe Power Plant will be sold FOB vessel at Detroit Edison's MERC facility. Notwithstanding these sales, the coal always remains under the supervision and control of Detroit Edison and MERC (no Fuels Company employees are involved in any process other than operation of the Fuels Companies separate equipment and facilities) and Detroit Edison's and MERC's books and records are maintained separately from the Fuels Companies.
>
> Most importantly, Section III.C of the Code of Conduct . . . provides for sales to affiliates at the higher of fully allocated cost or market price. With respect to fully allocated cost, the price at which Detroit Edison is selling the coal is equal to Detroit Edison's fully allocated cost, or book cost. The Fuels Companies will simply use the coal to produce REF and sell the REF back to Detroit Edison for consumption at the BRPP, SCPP and MPP and any adjustments to the sale price to reflect any higher market pricing would only serve to increase the resale price to Detroit Edison. Since the asymmetrical pricing provision of the Code of Conduct is intended to prevent Detroit Edison from subsidizing its unregulated affiliates, it is clear that this transaction is consistent with that intent and effectuates the proper outcome. To minimize repetition, Detroit Edison incorporates by reference and relies upon the information contained in Exhibit A-23 which fully describes how the REF project comply with the MPSC Code of Conduct including structural separation, preferential treatment and asymmetric pricing.

With regard to MEC's pre-sale notification argument, Detroit Edison considers this a "fabricat[ion of] an issue where none exists". Detroit Edison Rep Br, p 45. Detroit Edison explains, at Detroit Edison Rep Br, p 45-46, that:

> MEC/NRDC's contention that Detroit Edison must notify the Commission in advance of a coal sale or purchase is an untenable

> and unreasonable position -- one which has never been made or adopted by the Staff or the Commission. Furthermore, it makes no sense. Fuel for electric generation is a consumable expense incurred in the ordinary course of the day-to-day business of utilities. Furthermore, fuel expense is routinely (at least twice yearly) subject to consideration in regulatory proceedings, such as this PSCR proceeding, and is frequently consumed, traded, sold and replenished in the course of providing electric service. The provision cited by MEC/NRDC was clearly established for the purpose of providing the Commission advance notice of any intent to sell utility plant property such as power plants that are not part of the utility's day-to-day business activity or otherwise frequently considered in regulatory proceedings. MEC/NRDC's argument that advance notification is required ignores the frequent regulatory consideration and annual affiliate transaction reporting for such transactions.

MCAAA presents several additional arguments against approval of the REF Project. See MCAAA Init Br, p 16-19. First, MCAAA argues that Detroit Edison "has never sought or obtained advance approval of these projects". MCAAA Init Br, p 16. MCAAA adds that Detroit Edison "did not provide for transparent advance disclosure of the REF projects in any formal way, such as reporting them under Code of Conduct or Affiliate Guideline provisions." MCAAA Init Br, p 16.

Detroit Edison considers this argument "meritless". Detroit Edison Rep Br, p 46. Detroit Edison argues that "since there was no REF adder in existence prior to January 2011, there was no REF adder to bring before the Commission . . . in either the 2009 PSCR Plan case of the 2010 PSCR Plan case, although the REF project was, in fact, discussed in MPSC Case Nos. U-16047 and U-16434." Detroit Edison Rep Br, p 47.

Next, MCAAA challenges Detroit Edison's claims regarding its motivation to enter into the REF Project by stating, at MCAAA Init Br, p 17-18, that:

> [T]here exists little merit in [Detroit Edison's] claim that its parent company affiliates, and the [Fuels Company] affiliates, undertook the REF projects because of costs or business risks associated with the projects. The record shows that the REF projects were an outgrowth of research undertaken by other entities in North Dakota, and that several utilities and even mines have similar REF projects. Neither the provisions of the tax code, or the development of the REF processes, appear to be unique to DECo or its affiliates. Rather, it appears that the REF projects are more of a generic "cookie-cutter" technology which may have more to do with obtaining tax credit revenues and attempting to divert them from ratemaking review than they relate to risky research or operational projects. Moreover, the REF projects were made possible because of their integral relationship to DECo's coal supply chain and inventories, all created and financed by ratepayers.

To this argument, Detroit Edison responds by stating MCAAA "completely misses the point" and that, while, REF technology as been available for some time, "the risk arises from the fact that REF is not effective at every coal-fired plant and must be tested and optimized". Detroit Edison Rep Br, p 47.

Next MCAA argues that, through use of the REF Project, Detroit Edison has "sought to divert potentially hundreds of millions of dollars of revenues, in the form of monetized tax credits and other benefits, that should be recognized as an offset to Act 304 fuel costs". MCAAA Init Br, p 16. MCAAA adds, at MCAAA Init Br, p 17, that:

> [T]here exists no valid basis to support [Detroit Edison's] inherent theory that its affiliated [Fuels Companies], and their parent affiliates, should be able to monetize the REF project revenues (including associated tax credits), and to divert said revenues from recognition as cost reductions under Act 304, upon the theory that said treatment does not increase Act 304 costs. The comprehensive provisions of Act 304 do not freeze Act 304 rate levels, so as to permit the utility or its parent affiliates to capture all cost savings or fuel related revenues for itself, by diverting revenues from being recognized as a reduction to Act 304 costs. Instead,

> clearly, the Act 304 provisions provide for a two-way street, so as to reconcile both increased and decreased costs.
>
> . . . [T]here is no basis to suggest that federal tax law (that provides for the REF tax credits and which have resulted in monetized revenue gains for DTE or its affiliates) somehow preempts state ratemaking authority from ensuring that retail ratepayers are not shortchanged by such projects. [Detroit Edison] has not claimed, nor has any provision been cited, for the proposition that the federal tax provisions have sought to intrude in any way upon state ratemaking authority.

MCAAA continues by citing MCL 460.6j(13)(a), (d), (e), and (g) and arguing "that Act 304 appears to prohibit the kind of transactions that have been undertaken with respect to the fuel companies." MCAAA Init Br, p 18.

Finally, MCAAA argues that all of the transactions underlying the REF Project are designed "for the self-serving purpose of enhancing parent company revenues and tax benefits at the expense of the regulated utility, and by subverting or avoiding the ratemaking jurisdiction of the MPSC under Act 304." MCAAA Init Br, p 18. "As such", MCAAA argues "the transactions do not arise from arms-length bargaining among independent parties, but involve affiliated transactions where the incentive for affiliate abuse exists so as to enhance parent holding company profits at the expense of the regulated utility and its ratepayers." MCAAA Init Br, p 18-19.

The Attorney General, after citing MCL.460.6j(1)(a), argues, at AG Init Br, p 8, that:

> Money paid to one of DECo's affiliates to apply chemical additives to coal is not a price paid to buy coal. It is not a price paid to transport coal. It is not a reclamation cost paid to the seller. It is not a price paid to dispose of the coal. It is not a price paid to reprocess the coal. Therefore, so-called REF costs are not expenses recoverable under MCL 460.6j(1)(a).

Further, the Attorney General argues that MCL 460.6j(13)(d) does not permit PSCR treatment of REF costs because "the chemical treatment activity, which [Detroit Edison] euphemistically calls the REF project, occurs after and while [Detroit Edison] has possession of the fuel." AG Init Br, p 9. The Attorney General adds that, [l]ike any other fuel handling cost, these expenses should be treated as O&M expenses recoverable in base rates so long as the amounts are just and reasonable." AG Init Br, p 10.

In response, Detroit Edison argues that the Attorney General has incorrectly interpreted Detroit Edison's arrangement with the fuels companies. Detroit Edison argues that all coal processing costs "occur before the [refined coal] is delivered to . . . Detroit Edison, are consistent with the . . . [C]ode of Conduct, and are properly included in [Detroit Edison's] fuel inventory." Detroit Edison Rep Br, p 34-35. Detroit Edison adds, at Detroit Edison Rep Br, p 35, that:

> Section 6j(13)(d) is clearly referring to fuel movement that occurs after the utility receives the fuel at the power plant, which is how the MPSC Staff and the Commission have interpreted this section of PA 304 since it was enacted in 1982. Furthermore, Detroit Edison does not receive the fuel from the Fuels Companies until the REF enters the power plant for "just in time" consumption. Additionally, . . . "[t]here is no fuel handling expense whatsoever included in PSCR expense, either fuel handling related to Detroit Edison or its affiliates." Thus, the AG's conclusion that REF project costs will be disallowable costs of Detroit Edison handling coal after coal is received by the utility is simply not accurate or defensible.

The Attorney General also contends that REF costs are not permitted under MCL 460.6j(13)(e). The Attorney General argues that "REF results in an additional charge from an affiliate that increases the amounts that [Detroit Edison]

books . . . for the costs of fuel burned" and that "this additional cost must be disallowed under MCL 460.6j(13)(e)." AG Init Br, p 9.

The Attorney General continues by presenting arguments to distinguish REF costs from the cost of urea; a recoverable PSCR expense. AG Rep Br, p 11. The Attorney General then argues against recognition of REF costs by stating that the "Commission should restrict implementation of [Detroit Edison's] PSCR clause to the types of costs plainly defined in the statute." AG Rep Br, p 12. The Attorney General defends this position by arguing that it is "too easy to treat most costs as though they were PSCR expenses" and because the inclusion of REF costs would "expand[] retroactive ratemaking". AG Rep Br, p 12.

Detroit Edison responds by arguing that REF "expenses associated with the separation and disposal of various byproducts and emissions associated with coal combustion are a disposal cost of fuel, similar to urea expense." Detroit Edison Rep Br, p 36. Detroit Edison adds that "[u]tilizing REF to facilitate the economic separation and disposal of various byproducts and emissions associated with the combustion of coal is an act designed to eliminate and dispose of those elements of coal combustion that require disposal." Detroit Edison Rep Br, p 36.

Detroit Edison's Mercury Emission Related Expenses Request

Detroit Edison "requests that the Commission enter its order pursuant to MCL 460.6j(7) providing indication from the Commission whether it is unlikely to permit the Company to recover the mercury emission-related expense associated

with sorbents (e.g. PAC) for 2015 and thereafter." Detroit Edison Init Br, p 20. At Detroit Edison Init Br, p 20-21, Detroit Edison argues that:

> The use of Powdered Activated Carbon (PAC) to reduce mercury emissions is similar to the use of urea to reduce NOx emissions. The Commission's November 13, 2008 Order in Consumer Energy's 2008 PSCR Plan Case No. U-15415 approved the recovery of urea as a disposal cost. The expense associated with the use of PAC are also disposal costs and should therefore be included in the PSCR process. PAC will be used solely to reduce mercury emissions in order to comply with Michigan Rule 1503. MCL 460.6j(1)(a) allows:
>
> > "…the utility to recover the booked costs, including transportation costs, reclamation costs, and disposal and processing costs, of fuel burned by the utility for electric generation.."
>
> Therefore the Company is seeking guidance from the Commission regarding whether the Commission is unlikely to approve recovery of PAC in the Company's 2015 PSCR Plan.

The Attorney General opposes this request and argues, at AG Init Br, p 12-13, that:

> If DECo had requested the MPSC to indicate that the Commission would be unlikely to allow recovery of 2015 and 2016 mercury emission expenses, . . . the Company's request would be within the scope of statutorily permissible decisions.
>
> By asking **"whether"** the Commission would be unlikely to permit recovery of the forecasted amounts, the Company's application would a [*sic*] Catch 22 double negative answer. The Company is either requesting an implied assurance of future recovery or is suggesting, alternatively, that the Commission should rule a future forecasted [*sic*] is unreasonable and imprudent. This alternative implies that the Company forecasted what it has concluded are unreasonable and imprudent costs.
>
> * * *
>
> MCL 460.6j(7) limits the scope of the Commission's decisions regarding to the forecast period to the power to issue warnings about potential future disallowances based upon present forecast evidence. Thus, the Commission is not statutorily authorized to pre-approve a forecast or a portion of a forecast as DECo is really requesting.

The Attorney General points to page 11 of the Dec 6, 2011 Order in U-16434 for the argument that "the ultimate point of MCL 460.6j(7), which is that neither issuing a warning nor failing to issue a warning precludes allowing or disallowing recovery after a current PSCR plan year." AG Init Br, p 14.

Spent Nuclear Fuel Expenses

MCAAA argues that Detroit Edison failed to provide adequate evidence to support inclusion of the 2012 SNF expense of $7,916,000. MCAAA Init Br, p 20-21. In addition, MCAAA provides lengthy arguments claiming, among other things, that there is no mandate, under State or Federal law, requiring Detroit Edison to pay the SNF fees and that federal preemption does not limit the Commission's ability to act upon the issue. MCAAA Init Br, p 34- 47. Finally, MCAAA requests that the ALJ reverse the ruling on a motion to strike that was heard at the evidentiary hearing. MCAAA Init Br, p 21-33.

In response, Detroit Edison argues that MCAAA "simply regurgitates arguments, recommendations, testimony, and exhibits that have been repeatedly presented to the Commission [and] repeatedly rejected by the Commission." Detroit Edison Rep Br, p 5. Detroit Edison opposes MCAAA's request that the ruling on the motion to strike be reversed. Detroit Edison argues that the testimony and accompanying exhibits are irrelevant, are barred by the doctrine of collateral estoppel, and are, therefore, inadmissible. Detroit Edison Rep Br, p 9-14.

DISCUSSION

Introduction

As detailed above, Detroit Edison requests issuance of a Commission order that would: approve Detroit Edison's PSCR Plan and maximum PSCR Factor of 4.18 mills per kWh; indicate whether the Commission is unlikely to permit recovery of mercury emission related expenses starting in 2015; approve Detroit Edison's 5-year PSCR forecast; approve the Transfer Price treatment of renewable energy, and; approve the REF Project and related expenses. MEC, MCAAA, and the Attorney General all call for rejection of Detroit Edison's REF Project and its associated costs. In addition, MEC asks the Commission to indicate that it is unlikely to permit full recovery of the future coal costs and the Attorney General asks the Commission to indicate that it's unlikely to permit recovery of mercury emission reduction costs. Staff is generally supportive of the Plan and forecast submitted by Detroit Edison.

Statutory Provisions

MCL 460.6j provides, in part:

> (1) As used in this act:
> (a) "Power supply cost recovery clause" means a clause in the electric rates or rate schedule of a utility which permits the monthly adjustment of rates for power supply to allow the utility to recover the booked costs, including transportation costs, reclamation costs, and disposal and reprocessing costs, of fuel burned by the utility for electric generation and the booked costs of purchased and net interchanged power transactions by the utility incurred under reasonable and prudent policies and practices.
>
> * * *

(2) . . . [T]he public service commission may incorporate a power supply cost recovery clause in the electric rates or rate schedule of a utility. . . . Any order incorporating a power supply cost recovery clause shall be as a result of a hearing solely on the question of the inclusion of the clause in the rates or rate schedule . . . .

(3) In order to implement the power supply cost recovery clause . . ., a utility annually shall file . . . a complete power supply cost recovery plan describing the expected sources of electric power supply and changes in the cost of power supply anticipated over a future 12-month period specified by the commission and requesting for each of those 12 months a specific power supply cost recovery factor. . . . The plan shall describe all major contracts and power supply arrangements entered into by the utility for providing power supply during the specified 12-month period. The description of the major contracts and arrangements shall include the price of fuel, the duration of the contract or arrangement, and an explanation or description of any other term or provision as required by the commission. The plan shall also include the utility's evaluation of the reasonableness and prudence of its decisions to provide power supply in the manner described in the plan, in light of its existing sources of electrical generation, and an explanation of the actions taken by the utility to minimize the cost of fuel to the utility.

(4) In order to implement the power supply cost recovery clause . . ., a utility shall file . . . a 5-year forecast of the power supply requirements of its customers, its anticipated sources of supply, and projections of power supply costs, in light of its existing sources of electrical generation and sources of electrical generation under construction. The forecast shall include a description of all relevant major contracts and power supply arrangements entered into or contemplated by the utility, and such other information as the commission may require.

(5) If a utility files a power supply cost recovery plan and a 5-year forecast . . ., the commission shall conduct a proceeding . . . for the purpose of evaluating the reasonableness and prudence of the power supply cost recovery plan filed by a utility . . . and establishing the power supply cost recovery factors to implement a power supply cost recovery clause incorporated in the electric rates or rate schedule of the utility. . . . .

(6) In its final order in a power supply and cost review, the commission shall evaluate the reasonableness and prudence of the decisions underlying the power supply cost recovery plan filed by the utility . . . and shall approve, disapprove, or amend the power supply cost recovery plan accordingly. In evaluating the decisions underlying the power supply cost recovery plan, the commission

shall consider the cost and availability of the electrical generation available to the utility; the cost of short-term firm purchases available to the utility; the availability of interruptible service; the ability of the utility to reduce or to eliminate any firm sales to out-of-state customers if the utility is not a multi-state utility whose firm sales are subject to other regulatory authority; whether the utility has taken all appropriate actions to minimize the cost of fuel; and other relevant factors. The commission shall approve, reject, or amend the 12 monthly power supply cost recovery factors requested by the utility in its power supply cost recovery plan. The factors shall not reflect items the commission could reasonably anticipate would be disallowed under subsection (13). The factors ordered shall be described in fixed dollar amounts per unit of electricity, but may include specific amounts contingent on future events.

(7) In its final order in a power supply and cost review, the commission shall evaluate the decisions underlying the 5-year forecast filed by a utility . . . . The commission may also indicate any cost items in the 5-year forecast that, on the basis of present evidence, the commission would be unlikely to permit the utility to recover from its customers in rates, rate schedules, or power supply cost recovery factors established in the future.

* * *

(13) In its order in a power supply cost reconciliation, the commission shall:

(a) Disallow cost increases resulting from changes in accounting or ratemaking expense treatment not previously approved by the commission. The commission may order the utility to pay a penalty not to exceed 25% of the amount improperly collected. Costs incurred by the utility for penalty payments shall not be charged to customers.

* * *

(d) Disallow transportation costs attributable to capital investments to develop a utility's capability to transport fuel or relocate fuel at the utility's facilities and disallow unloading and handling expenses incurred after receipt of fuel by the utility.

(e) Disallow the cost of fuel purchased from an affiliated company to the extent that such fuel is more costly than fuel of requisite quality available at or about the same time from other suppliers with whom it would be comparably cost beneficial to deal.

* * *

(g) Disallow additional costs resulting from unreasonably or imprudently renegotiated fuel contracts.

The Code of Conduct reads, in part:

CODE OF CONDUCT

This code of conduct is intended to promote fair competition by establishing measures to prevent cross-subsidization, information sharing, and preferential treatment between regulated and unregulated operations of electric utilities . . . and their affiliates.

* *

II. Separation

An electric utility . . . that offers, itself or through its affiliates, both regulated and unregulated services shall do so with the structural or functional separation needed to prevent cross-subsidization, information sharing, and preferential treatment between the regulated and unregulated services. This includes, but is not limited to, the following:

* * *

B. An electric utiliity's . . . regulated services shall not subsidize in any manner, directly of indirectly, the unregulated business of its affiliates or other separate entities.

C. An electric utility . . . shall maintain its books and records separately from those of its affiliates . . . .

D. An electric utility . . . and its affiliates . . . shall not share facilities, equipment, or operating employees . . . .

E. An electric utility's . . . operating employees and the operating employees of its affiliates . . . shall function independently of each other and maintain separate offices.

* * *

III. Discrimination

An electric utility . . . that offers, itself or through its affiliates, both regulated and unregulated services shall not unduly discriminate in favor or against any party, including its affiliates. This includes, but is not limited to, the following:

* * *

C. If an electric utility . . . offering regulated service in Michigan provides services, products, or property to any affiliate . . ., compensation shall be based upon the higher of fully allocated embedded cost or market price. If an affiliate . . . provides services, products, or

> property to an electric utility . . ., compensation for services and supplies shall be at the lower of market price or 10% over fully allocated embedded cost and transfers of assets shall be based upon the lower of fully allocated embedded cost or market price.
>
> * * *
>
> IV. Disclosure of Information
>
> Information obtained by an electric utility . . . in the course of conducting its regulated business in Michigan shall not be shared directly of indirectly with its affiliates . . . unless that same information is provided to competitors operating in the state on the same terms and conditions and contemporaneously.

Sorbent Expenses

In this case, Detroit Edison has requested that, pursuant to MCL 460.6j(7), the Commission provide an indication as to "whether it is unlikely to permit the Company to recover the mercury emission-related expense associated with sorbents (e.g. PAC) for 2015 and thereafter."

Such guidance is permissible under MCL 460.6j(7), which reads, in part:

> [T]he commission shall evaluate the decisions underlying the 5-year forecast . . . [and] may also indicate any cost items in the 5-year forecast that, on the basis of present evidence, the commission would be unlikely to permit the utility to recover from its customers in rates, rate schedules, or power supply cost recovery factors established in the future.

A similar request was made in Detroit Edison's last PSCR Plan case; Case No U-16434. In that case, the Commission ruled that, "on the basis of the evidence presented in this case only, the Commission would be unlikely to permit recovery of the requested costs in 2015." *Application of The Detroit Edison Co,* U-16434, Order, p 11 (Dec 6, 2011). The Commission considered the request "premature and not well fleshed-out" and determined that Detroit Edison had

"given the Commission very little idea of whether, and how much, the sorbents will actually reduce mercury emissions." *Id.* The Commission then advised Detroit Edison that:

> [T]he Commission will require more and better information on the efficacy of available methods for achieving mercury emissions reductions, as well as a demonstration showing that the REF Project is a reasonable and prudent way of achieving the maximum reductions for the minimum cost, from both a technological and business point of view. The REF Project must also be shown to comply with the Code of Conduct. . . . Detroit Edison will need to return to the Commission with a much more detailed presentation on the costs, benefits, and efficacy of the fuel treatment program, as well as the costs and benefits of other potential mercury emissions reduction processes, if any exist. *Id.*

In this case, there are two primary issues related to the sorbent expenses. The first is whether sorbent expenses should be considered a disposal cost of fuel burned for electric generation and are, therefore, a recoverable expense pursuant to MCL 460.6j(1)(a). Detroit Edison's arguments on this point are persuasive. The second is whether, on the basis of the evidence presented, the Commission would be unlikely to permit recovery of the requested sorbent costs. On this second issue, Detroit Edison has failed to present sufficient evidence to avoid just such a finding.

As to whether sorbent expenses are disposal costs, Detroit Edison points out that it plans to use PAC and BrPAC solely to reduce mercury emissions, as required by law. Detroit Edison argues that, by analogy, the Commission's findings regarding, and approval of, urea costs as a cost of disposal supports a finding that PAC and BrPAC costs should, likewise, be approved as costs of disposal. This argument is convincing. In both cases, the chemical additive is

necessary for the reduction of emissions; urea for NO_X and PAC and BrPAC for Hg. To the degree that Detroit Edison is asking for clarification and guidance on this point, it is found that reasonably and prudently incurred PAC and BrPAC expenses are recoverable as a cost of disposal of fuel burned for electric generation.

As to the second matter, again, as in its last Plan case, based on the evidence presented, it is unlikely that Detroit Edison will be permitted to recover these costs in the PSCR factor. As in Case No. U-16434, for a number of reasons the request appears premature and not well fleshed out. First, as found above, Detroit Edison was not able to present reliable sorbent cost estimates. Additionally, Detroit Edison admitted that, with regard to the Hg emission reduction system that must be installed before sorbent expenses are incurred, it had only identified equipment that "might" be used and has yet to perform the necessary design work. Further, Detroit Edison appears uncertain about which of its power plants are candidates for the installation of Hg emission reduction technology and which power plants are candidates for closure. In addition, as discussed below, Detroit Edison has failed to establish that the REF Project, to which Detroit Edison's Hg emission reduction strategies seem inextricably linked, complies with the Code of Conduct. Detroit Edison also failed to address what effects the ten-year expiration of the REF Project will have on sorbent expenses and its Hg emission reduction systems, as a whole. While this final matter falls outside the 5-year timeframe of the forecast, it is a known factor that must be

considered to determine the reasonableness and prudence of Detroit Edison's mercury emission reduction strategy.

Furthermore, in Case No U-16434, Detroit Edison was advised that the "Commission will require more and better information on the efficacy of available methods for achieving mercury emissions reductions". In this case, Detroit Edison has done little to meet this requirement. Detroit Edison has failed to present cost/benefit analysis for any Hg emission reduction strategy. Instead, Detroit Edison merely states that testing has shown ACI to be the most efficient and cost effective method for Hg emission reductions and predicts it can meet Hg emission limits by using sorbents and ACI technology, with or without REF. While this may be true, Detroit Edison presents no factual information to support this claim and, based on this record, an independent confirmation of Detroit Edison's conclusions is not possible. Additionally, Detroit Edison provides little, if any, analysis of alternative emission control technologies. Rather, they are summarily dismissed with little explanation. Further, Detroit Edison does not satisfactorily address any of the alternatives suggested by MEC, namely, demand side management, increased renewable energy, and increased use of natural gas combined cycle generation. As noted in Case No U-16434, Detroit Edison's efforts in researching emission control technology deserve commendation. However, Detroit Edison must establish that its emission related fuel costs are incurred as the result of reasonable and prudent decisions, policies, and practices. Detroit Edison's failure to present meaningful cost/benefit analysis of any mercury emission reduction strategy and/or technology makes it impossible

to independently evaluate the reasonableness and prudence of the strategy it has chosen and the, apparently, quite substantial capital investments it intends to make and from which these PSCR expenses arise.

In sum, in this case, Detroit Edison has presented additional information about its mercury emission reduction strategies and costs. However, the presentation of evidence has been, at times, inconsistent and incomplete. Detroit Edison has failed to provide reliable sorbent cost estimates. More importantly, however, Detroit Edison has failed to provide reasonable cost/benefit analysis of its chosen emission control strategy, of the alternative control technologies, and of strategies to reduce emissions through less burning of coal. As was directed by the Commission in Detroit Edison's last Plan case, this cost/benefit analysis must be provided. Again, it was not. For these reasons, based on the present evidence, the Commission is unlikely to permit recovery of the requested sorbent costs.

Reduced Emission Fuel Project

Included in the 2012 PSCR Plan and the five-year forecast is Detroit Edison's REF Project and its associated costs. Detroit Edison seeks approval of the Project and its costs. The REF Project was previously included in Detroit Edison's last PSCR Plan case, Case No U-16434. In that case, the Commission found "that the request for inclusion of the REF Project costs in the 2011-2015 plan cases is premature." The Commission added that the "evidence offered simply does not demonstrate the reasonableness and prudence of the amounts to be paid for services rendered by the affiliates, nor does it demonstrate to what

extent the REF adder will actually reduce SO_2 and NO_X emissions." The Commission went on to state that Detroit Edison is "require[d]" to present "more and better information on the efficacy of available methods for achieving mercury emissions reductions, as well as a demonstration showing that the REF Project is a reasonable and prudent way of achieving the maximum reductions for the minimum cost, from both a technological and business point of view." In addition, the Commission stated that the REF Project "must also be shown to comply with the Code of Conduct." Finally, the Commission directed Detroit Edison "to return" "with a much more detailed presentation on the costs, benefits, and efficacy of the fuel treatment program, as well as the costs and benefits of other potential mercury emissions reduction processes, if any exist." In this case, Detroit Edison has presenting limited additional information about the REF Project.[22] As a result, Detroit Edison has failed to comply with the directions of the Commission and, for the reasons explained, below, the 2012 Plan requires amendment to remove the REF Project. Further, the REF Project is a cost item in the 5-year forecast that, on the basis of present evidence, the Commission would be unlikely to permit the utility to recover.

REF Related Emissions Reductions

As indicated above, in the last Plan case, Detroit Edison was directed to provide additional information regarding REF related emission reductions. While, on this record, a number of details about the REF Project remain shrouded

[22] In its arguments, Detroit Edison relies on a word count methodology to establish it has complied with the Commission's demand for "more and better information" about, among other things, the REF Project. This argument is most unconvincing. As counsel is certainly aware, whether a party has met its burden of proof is not dictated by the number of words presented.

from view, Detroit Edison has presented evidence to address some of the Commission's stated concerns, including information regarding SO_2, NO_X, and Hg emissions reductions. Detroit Edison has established that it can not measure reductions of NO_X that are attributable to the use of REF. Additionally, at its SCPP, Detroit Edison is currently unable to determine Hg emission reductions attributable to REF. At Detroit Edison's SCPP and BRPP, in 2015 and beyond, it is not anticipated that REF will reduce Hg emission, but, instead, will reduce the costs of sorbents. However, Detroit Edison has failed to present reliable estimates of the sorbent costs or the cost reductions attributable to REF. With regard to SO_2, Detroit Edison calculates that, in 2011, the use of REF at the SCPP reduced SO_2 emissions by 1,087 tons. On this record, Detroit Edison has not established REF related emission reductions at its BRPP. At the MPP, Detroit Edison expects the primary Hg emission reduction benefit of REF to be increased vapor phase Hg oxidation that increases Hg capture by the FGD system. The current cost savings associated with the reduced emissions is considered de minimus.

Code of Conduct (Code)

Detroit Edison argues that the record developed in this case established that the Code of Conduct is not violated by the REF Project and, for support, refers to Exhibit A-23. However, the vast majority of Detroit Edison's presentation on this issue came in the form of conclusory statements, much in the form of bullet points. The underlying factual evidence that would support Detroit Edison's conclusions was not presented for consideration. In addition, as was noted by

this ALJ in Detroit Edison's prior Plan case, Detroit Edison has failed to present any of the actual contracts between Detroit Edison and its affiliates. Detroit Edison's decision to present its case in this fashion seriously undermines and limits the fact finding ability of the Commission. Thus, for a wide variety of reasons, some of which are discussed below, Detroit Edison has failed to establish that the REF Project complies with the Code of Conduct.

First, there are three sets of transactions at the SCPP and BRPP that appear questionable and for which Detroit Edison has failed to establish conform to the Code: Detroit Edison's sale and purchase of coal inventory, at cost; the Fuel's Companies' purchase and sale of additional coal, at cost, and; Detroit Edison's sale and purchase of its coal handling services, at cost. Pursuant to Section III C of the Code, if Detroit Edison provides services, products, or property to any affiliate, compensation shall be based upon the higher of fully allocated embedded cost or market price. If Detroit Edison's affiliate provides services, products, or property to Detroit Edison, compensation for services and supplies shall be at the lower of market price or 10% over fully allocated embedded cost and transfers of assets shall be based upon the lower of fully allocated embedded cost or market price. For all of these transactions, Detroit Edison has failed to present factual support for their assertion that these transactions are, in fact, priced at cost. Additionally, Detroit Edison has failed to establish the market prices for these transactions. Further, rather than presenting the actual contracts that govern these transactions, Detroit Edison has provided generalized statements regarding the nature of the transactions. Instead of

presenting a detailed explanation of how these transactions comply with the Code, Detroit Edison argues that these transactions cost PSCR customers nothing and that "adjustments" to reflect market prices and, thereby, to comply with Section III.C. of the Code, would only inflate the cost of the transactions. While, as a general observation, this may be true, it is not determinative as to whether these transactions conform to the Code. It can easily be argued that this arrangement provides the Fuels Companies the coal and related services at no cost. Detroit Edison has not explained how this is permissible under the code. Furthermore, as MEC points out, Detroit Edison's position completely misses the point of the Code's Section II.B. (more fully discussed below) which forbids Detroit Edison from subsidizing "in any manner, directly or indirectly, the unregulated business of its affiliates or other separate entities."

Of additional concern are the Site Fees charged at SCPP, BRPP, and MPP. Because Detroit Edison chose to provide only an overview of the Site Fees and did not submit the actual contracts for review, there are few firm factual determinations that can be made about these fee arrangements. None-the-Less, Detroit Edison suggests that the fees' primarily purposes are to cover increased O&M caused by the Fuels Companies presence at the power plants and that the Site Fees are based on cost. Again, Detroit Edison provides no information regarding the market value of the services, products, and/or property provided under the Site Fee. Thus, based on the record presented, it is not possible to conclude these arrangements conform to Section III.C.; rather, if anything, a violation of the section is suggested.

Section II B of the Code forbids Detroit Edison from subsidizing, in any manner, directly or indirectly, its affiliates or other separate entities. For a number of reasons, Detroit Edison has also failed to establish that the REF Project conforms to this provision. As already noted, the evidence presented to address compliance with the Code of Conduct took the form of conclusory statements with none of the underlying factual information presented and none of the applicable contracts offered into evidence. Without this information, fact finding with regard to subsidization is nearly impossible and Detroit Edison leaves a variety of questions unanswered.

For example, Detroit Edison has chosen not to present factual information to establish that any of the transactions that it claims are priced at cost are, in fact, actually priced at cost. Additionally, from what little can be known about the Site Fees, it appears that they are designed, in part, to compensate Detroit Edison for increased O&M. Whether they do, can not be confirmed. Additionally, even if increased O&M is properly compensated, Detroit Edison has failed to present evidence to establish that it is being properly compensated for the value of permitting the Fuels Companies to occupy, as profit making enterprises, the real property of Detroit Edison's power plant sites.

Further, as was the case and as was noted in the last Plan case, Detroit Edison has presented little to explain the relationship between Detroit Edison, the MPPA, and the BRFC. In particular, Detroit Edison has presented nothing to establish that, whatever that relationship is, it conforms to the Code of Conduct. More reason to explain this relationship is provided by Detroit Edison's

unconvincing claim that, in making its decision to contract with BRFC, it relied upon on the unspecified contractual relationships between the MPPA and the BRFC as justification for entering into similar arrangements with BRFC.

In this case, of the seven Fuels Companies sited at Detroit Edison power plants, Detroit Edison does not address any of the contractual arrangements it has with four. Detroit Edison leaves unaddressed whether it is directly subsidizing these Fuels Companies and indirectly subsidizing these Fuels Companies' customers. The failure to explain this relationship is particularly troubling since it appears that these four other Fuels Companies have attached equipment to Detroit Edison's power plants, have tested and refined their equipment and processes, and, in the case of at least two of the Fuels Companies, are now relocating the equipment to non-DTE power plants, where they stand to turn a profit; a profit made possible, in part, by the Fuels Companies access to Detroit Edison's power plants and goodwill.

Also, for all the Fuels Companies, Detroit Edison does not explain when their facilities were constructed, when the various contracts became operational, and what, if any, compensation was made to Detroit Edison prior to the REF facilities becoming operational. At the BRPP, specifically, the status of the Project's contractual arrangements and any payments pursuant to them remains unclear, as BRFC is still in the testing phase. Thus, it's not possible to determine if subsidies were, and are being, provided prior to the REF facilities becoming operational.

As presented in this case, there also appears to be research and development related matters that raise additional Code of Conduct questions. Detroit Edison's witness, Mr. Rogers, provides a brief overview of the decade long research and development program that he credits Detroit Edison as having conducted. In his testimony, he indicates, among other things, that Detroit Edison demonstrated the usefulness of REF. Accepting his representations, it is a bit perplexing that Detroit Edison justifies the REF Project, in part, on the expertise of its affiliates. From the record, it would appear that, through its R&D, Detroit Edison set the stage for the REF Project and the Fuels Companies were created to profit from it, not only at Detroit Edison's sites, but also at the sites of non-affiliated utilities. Detroit Edison has failed to address why this does not represent a subsidy directly to the Fuels Companies and indirectly to the unaffiliated customers of the Fuels Companies.

In short, Detroit Edison's presentation of evidence to establish that the REF Project conforms to the Code of Conduct falls well short of what's required. The concerns outlined above do not represent an exhaustive list of the Code related issues Detroit Edison must address, but do provide some guidance as to the sort of matters that will need to be thoroughly presented in future filings. Again, as stated in the last PSCR case, Detroit Edison must establish that the REF Project conforms to the Code of Conduct. It has not done so in this case. Therefore, the 2012 Plan shall be amended to remove the Project's cost and it is indicated that, on the basis of the evidence presented, the Commission is unlikely to permit the recovery of future REF Project costs.

Proper Treatment of REF Project Profits

Beyond the Code of Conduct, the intervenors all seem to share a more fundamental concern about the REF Project. The concern stems from Detroit Edison's decision to fracture off one aspect of its integrated electric generation process so that its parent company can generate hundreds of millions of dollars in profits for itself and its investors. Physically, the REF Project is incorporated into Detroit Edison's power plants and, for all intents and purposes, is just another of many components that together form Detroit Edison's generation facilities and process. However, rather than being owned and operated by Detroit Edison, as a component of its power plant emission control systems, the REF project is owned and operated by Detroit Edison affiliates and undisclosed investors. It is this fracturing of Detroit Edison's power plant operations to permit affiliate profit making that proves troublesome to the intervenors.

By artfully structuring layers of corporate ownership and investment partners to take advantage of the available tax credits, DTE Energy has devised a scheme to generate substantial profits from the chemical treatment of Detroit Edison's coal. This show of ingenuity is not criticized. However, the issue that must be thoroughly addressed is whether and, if so, to what degree these profits are properly considered a reduced cost of fuel and accounted for in the PSCR process. This issue is not directly addressed by Detroit Edison. Rather, Detroit Edison presents limited explanations for why it hasn't undertaken the Project itself and steers clear of any suggestion that the REF related profits should actually be considered its property and should flow to its customers. These explanations are

not particularly satisfying and are stated in such general terms that detailed fact finding about them is not possible.

For instance, one of the problems Detroit Edison cites is that they don't own the rights to use ChemMod. In light of all the R&D attributed to Detroit Edison, including its determination regarding ChemMod's usefulness, some explanation about how this came to be is warranted. In addition, something more than a summary dismissal of ChemMod alternatives should be presented. Another rationale Detroit Edison presents is that the tax credits are not available to it because the REF must be provided by an unaffiliated company. However, the REF is, in fact, supplied by an affiliate. No explanation is presented to explain why Detroit Edison could not, itself, have devised a similar corporate and investor structure to retain these tax credits for its customers. Detroit Edison also referenced avoidance of risk as part of their decision making process, but failed to satisfactorily explain the nature and magnitude of these risks. Detroit Edison cites avoidance of capital expenditures as another reason for the REF Project. However, again, Detroit Edison fails to explain the capital costs involved. This is particularly troubling given that Detroit Edison indicates that, as part of the Adder, Detroit Edison must pay the Fuels Companies for "avoided Hg capital amortization" and that Detroit Edison does not address any of its plans to deal with the 10-year expiration of the Project.

In short, Detroit Edison presented a number of conclusory statements to explain why it agreed to participate in the REF Project. No serious attempt was made to present factual information to support those statements and it is not

possible to determine whether these decisions were reasonable and prudent. Detroit Edison needs to present considerably more evidence to explain, not only the structure of the REF Project, but also the rationale for the structure. Detroit Edison must thoroughly explain the alternatives it considered and why they were rejected. The inability of Detroit Edison to properly explain the Project raises questions as to the proper allocation of REF Project profits between DTE Energy, its investors, and Detroit Edison's customers.

Summary

To meet constantly evolving and uncertain environmental regulations, Detroit Edison appears to have actively engaged in the ongoing research and development of emission reduction systems and technologies. Through these activities, Detroit Edison determined that REF could be a useful tool to meet future emission reduction mandates. It appears that, as a result of this determination, Detroit Edison's affiliate acquired the exclusive rights to provide Detroit Edison with ChemMod, one of, apparently, many chemical mixtures and/or technologies available to help reduce mercury emissions. Detroit Edison has agreed to contractual relationships with its affiliates for the provision of REF for a ten year period. Under these agreements, the affiliates stand to profit considerably and Detroit Edison customers will benefit from a reduction in base rates.

However, considering the magnitude of the profits DTE Energy expects to generate from the Project, something in the range of half a billion dollars, and that the Project is the first step in Detroit Edison's still developing strategy for

increased emission control, this Project warrants a thorough evidentiary presentation and careful scrutiny. Ultimately, Detroit Edison customers can expect to finance, what are likely to be, very expensive emission control systems at Detroit Edison's power plants. The REF Project is the first and, apparently, a temporary step in the development and installation of those systems. It has also become the component that Detroit Edison has now committed itself to design the remainder of its emission control systems around. In addition, it is a component of Detroit Edison's emission control strategy that, by its terms, ceases to exist ten years after its inception. It appears clear that the timing of the REF Project was driven more by deadlines associated with the tax credits than by Detroit Edison's actual needs. Thus, the Project requires a far more thorough examination than would usually be warranted by the marginal effects it may have on PSCR costs. In this case, Detroit Edison has not presented sufficient evidence to afford such an examination of the Project. Because PSCR Plan contested case hearings may not be the best vehicle by which to examine the REF Project and the long-term emission control strategy that Detroit Edison is developing, it is recommended that a separate docket be opened for such a purpose.

MEC's Argument on Coal Costs

As more fully explained above, MEC argues that the Commission should indicate that it is unlikely to authorize full recovery of coal costs in the later years of the 5-year plan. MEC justifies this argument largely on the fact that, when addressing its plans to comply with increasing environmental regulations, Detroit

Edison has failed to present any alternatives to the installation of expensive emission control technology. MEC also cites to increasing coal costs, lower natural gas costs, and the merits of demand side management. Detroit Edison considers these arguments "not credible". Contrary to Detroit Edison's opinion, they are. However, at this time, based on the record presented, a warning under MCL 460.6j(7) is not warranted.

Detroit Edison is facing a rapidly changing and uncertain electric generation future. Detroit Edison will likely be faced with significant long-term and potentially quite expensive decisions regarding the continued operation of its coal fired fleet. To justify the expenses, it will have to show that its underlying decisions are reasonable and prudent. It will have to do so by presenting reasonable cost/benefit analysis of the numerous options available to it. Based on the evidence presented in this case, Detroit Edison appears to be seriously considering only one of those options; the installation of emission control systems on its power plants. For even this, however, it presents no cost benefit analysis to support its decisions.

In seeming acknowledgment of the legitimacy of MEC's argument, Detroit Edison states that in its 2013 Plan, "it may very well have different projections based on many of the changing circumstances that MEC/NRDC points out." However, Detroit Edison downplays MEC's concern by arguing that, "[d]ue to the great amount of uncertainty around important variables such as EPA rules, wholesale market rules, fuel prices, and renewable energy mandates, . . . long-term generating unit plans are also uncertain." Detroit Edison is correct that it

faces uncertainties and that future projections may change. However, in light of the fact that its parent company, DTE Energy, profits from each ton of coal burned at SCPP, BRPP, and MPP, Detroit Edison must expect and appropriately respond to increased scrutiny of its coal costs. Detroit Edison must methodically address and account for the uncertainties it faces, must present meaningful evaluations of its alternatives, and must justify its continued reliance on coal as that option becomes increasingly expensive for its customers and temporarily profitable for its parent company.

Natural Gas Expenses – 2012

The parties do not contest Detroit Edison's natural gas purchasing practices. Rather, evidence was presented to show that Detroit Edison's 2012 natural gas costs will likely be lower than projected. Any variance from the projected costs should be addressed during the reconciliation proceedings.

Spent Nuclear Fuel (SNF)

Based on the argument that Detroit Edison failed to provide adequate evidence to support the 2012 SNF expense, MCAAA argues against the inclusion of this $7,916,000 cost.

This issue has been extensively litigated before the Commission, on numerous occasions.[23] The Commission has consistently rejected MCAAA's position. No material changes of fact or law have been presented to warrant any

[23] See Case No U-12613, Case No U-12614, Case No U-12615, Case No U-12725, Case No U-13771, Case No U-13808, Case No U-13917, Case No U-13919, Case No U-15244, Case No U-15245, Case No U-16434, *In re Application of Detroit Edison Co*, 276 Mich App 216 (2007), and *In re Application of Indiana Michigan Power Co*, 275 Mich App 369 (2007).

change in the Commission's long-standing position. In short, these costs are mandated under federal law and, therefore, it is reasonable and prudent for Detroit Edison to collect and remit them to the federal government. This aspect of the Plan is approved with the expectation that Detroit Edison will pursue all reasonable legal actions to protect the interests of its customers.

Additionally, MCAAA requests reversal of the ALJ's ruling granting the motion to strike the testimony of its witness, Ronald C. Callen. The Motion to Strike the testimony of Mr. Callen was heard and decided on May 21, 2012. No motion to reconsider that ruling has been filed and no appeal of that ruling has been taken. Rather, in its June 18, 2012 Initial Brief, MCAAA "request[ed] the ALJ to reconsider and reverse this ruling in his PFD." Because the question has not been properly presented, the request is not considered.

CONCLUSION

Detroit Edison's Application and accompanying evidentiary presentation meets the minimal filing requirements of MCL 460.6j.

Pursuant to MCL 460.6j(6), the reasonableness and prudence of Detroit Edison's Plan has been evaluated. For the reasons and in the manner stated above, Detroit Edison's Plan, including the PSCR factors, is approved, as amended.

Pursuant to MCL 460.6j(7), the decisions underlying the five-year forecast have been evaluated and the five-year forecast is accepted for filing. On the basis of the evidence presented in this case, the Commission is unlikely to permit

recovery of the projected sorbent and REF Project costs that are included in the five-year forecast.

Any arguments not specifically addressed in this Proposal for Decision were deemed irrelevant to the findings and conclusions of this matter.

MICHIGAN ADMINISTRATIVE HEARING SYSTEM
For the Michigan Public Service Commission

Mark D. Eyster

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Mark D. Eyster
Administrative Law Judge

ISSUED AND SERVED: December 4, 2012
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